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433 241 178 Recôncavo remains today a backward and traditional agricultural society.

However, not all elements in Recôncavo life are static. In the field one was incessantly conscious both of the gradual course of change in this region and of the latent instability of its economic organization. Particularly in the last 75 years the agricultural economy of the Recôncavo has begun to shift--it is apparently in the throes of a drastic economic reorganization. It remains to be seen whether the traditional values will survive this economic revolution. [128] The brief historical discussion to follow is not intended as a substitute for a full-scale historical reconstruction. Its purpose is to indicate the major patterns in the evolution of the Recôncavo.

175 The Evolution of Colonial Agricultural Institutions. By the end of the initial half century of settlement (1600) those ethnic groups, crops, animals, and agricultural institutions which were to [567] become characteristic of the Recôncavo were already in evidence. Negro [249] slaves were brought in on the heels of the first Portuguese settlers,[3] [231] and sugar cane and cattle were also introduced at this time.[4] Tobacco [244] and manioc, produced by the Indians indigenous to the northeast of [241] Brazil, were rapidly integrated into the colonial agriculture of the [177] Recôncavo.[5] The combined sugar mill and plantation (engenho), which [249] was the basic economic institution of the Recôncavo until the end of [471] the nineteenth century, already existed in rudimentary form before 1600.[6]

175 249 [244] From the beginning the new colony in the Recôncavo had three important crops--sugar cane, tobacco, and manioc. It was the cultivation of sugar which the Portuguese crown and the initial settlers had

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compose most of the population of the Recôncavo today. In 1940 the population of the Centro-Litoral of Bahia--the census area most closely corresponding to the Recôncavo--had the following compositions white, 22 per cent; black, 29 per cent; and others, predominately mulatto, 49 per cent.[12]

The purchase of large quantities of slaves required the production of a commodity which could be used as exchange in Africa. The indigenous tobacco proved eminently suitable for this purpose. Although rum apparently was used also in this trade, tobacco became the essential source of exchange for the slave traffic.[13] Bahia was the main area of tobacco production, and probably most of this production was localized in the Recôncavo.[14]

The initial period of settlement saw also the incorporation of manioc[15] into the agricultural economy as a staple. Like tobacco, it was an indigenous crop. Thus one indigenous crop was adopted to purchase slaves in Africa and another to feed them in Brazil. By 1587 manioc apparently was being cultivated on a moderate scale in Bahia.[16] A recurring theme in the history of the Recôncavo is the shortage of this essential foodstuff.

In addition to the principal crops--sugar, tobacco, and manioc--a number of lesser agricultural products were important in the early history of the Recôncavo. Corn, beans, and bananas were grown on a small scale and used to supplement the manioc diet. Other diversifications of the diet were provided by meat and fish. Cattle were maintained to draw the ox carts and to power many of the cane mills. For lighter tasks asses and mules were used.

Out of this complex of Portuguese settlers and Negro slaves, of old world and new world crops, there developed certain characteristic agricultural enterprises. The engenho--old world in the origin of its

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The landed, slave-owning aristocrat was the master of Recôncavo society. The extended aristocratic family was the basic social, economic, and political unit of colonial society. The upper class of the Recôncavo, composed of inter-related family units, continued without substantial alteration until the twentieth century.

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Despite the predominance of sugar cane and the engenho in the colonial Recôncavo--and in the literature on the region--other products and other institutions were important. It is clear that tobacco and manioc were the chief secondary agricultural products, but the development of the associated institutions is not documented. Presumably a class of small semi-subsistence cultivators occupied the lands unsuitable for sugar cane. This class probably was composed of whites lacking the capital for plantation agriculture and freed mulattoes and slaves--manumission was very common in the Recôncavo. The chief commercial product of these small farmers was rolo or corda tobacco (similar to a "twist" of tobacco),[22] and probably to a lesser extent farinha de mandioca (manioc flour). In addition, corn, beans, rice, and bananas were produced.

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The colonial economy of the Recôncavo was not self-sufficient, in spite of the production of food crops and meat animals on small farms and on plantations. Near the beginning of colonization the livestock ranching industry, originating in coastal areas like the Recôncavo, migrated into the interior of the Northeast. Thereafter [231] a strong current of trade in animals, especially cattle, flowed into the Recôncavo from the São Francisco valley, from Ceará, and probably from the sertão of Bahia between the coast and the mountains. These animals were exchanged at the cattle fairs--notably at Feira de Santana--for the products of the coast and for imports from abroad.

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231 After they had recuperated from the long drives, the cattle were used for both labor and food.

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433 The colonial economy developed in the Recôncavo--in common with
439 Pernambuco, Campinas (Rio de Janeiro), and lesser centers like Sergipe
171 and Alagoas--was distinct from the economy of the south of Brazil. São Paulo, for example, was self-sufficient, buying little from abroad and having little to sell. Bahia and Pernambuco were almost completely dependent upon exchange with European markets, with Portugal acting as the middleman.

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249 Economic Development from 1600 to 1850. By the middle of the
439 seventeenth century most of the institutions discussed above existed in at least rudimentary form. They were nurtured by an expanding Brazilian commercial economy which enjoyed, for the moment, a virtual monopoly in sugar. Bahia was the leading province in Brazil in the export of both sugar and tobacco.[23] The production of these crops was centered almost entirely in the Recôncavo area of the state. The
[567] tobacco was sent at first to Africa, in exchange for increasingly large numbers of slaves for the ever-greedy sugar industry. Slowly, however, a secondary market for Bahia tobacco developed in Europe. With few exceptions the sugar was marketed in Europe and at a high price. The engenhos of Bahia were the largest in Brazil, though still very small by modern standards.[24]

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648 The development of the colony did not proceed smoothly. In the mid-seventeenth century Bahia was occupied for a brief period by the Dutch, but the development of the colony faltered only momentarily. On the other hand, the Dutch occupied Pernambuco and the north coast for a longer period. The subsequent transference of Dutch efforts to the West Indies was to have a profound effect upon the future of

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241 [464] The skills of the 196,000 workers are an important agricultural resource in the Recôncavo. This resource can best be evaluated in terms of the prevailing agricultural systems: hoe and rudimentary plow agriculture. Hoe agriculture is universal in the Recôncavo, and in a society so thoroughly permeated with agricultural activity it is fair to assume that, except for some completely urbanized laborers in Salvador, all workers are familiar with the simple tools of this form of cultivation. [249] Plow cultivation is more specialized; it is used throughout the sugar cane zone but only in preparing the fields for planting. The seedstalks are covered with a hoe, and knives are used [407] for weeding and harvesting. Outside the sugar zone plows are rarely encountered.

[231] The domesticated animals which play a prominent role in cultivation in the Recôncavo are oxen, horses, mules, and donkeys, and the rudiments of their management are almost universally understood. The prominent crops of the Recôncavo are ubiquitous--manioc, corn, beans, sweet potatoes, peanuts, tobacco, sugar cane, bananas, and oranges are grown in all areas, and their cultivation under the prevailing agricultural system is common knowledge. There is little present need for agricultural labor specialized beyond this level.

241 178 It is clear that the introduction into the Recôncavo of new, radically different crops or techniques of cultivation would alter this [181] relatively favorable situation. The agricultural worker of the Recôncavo, like his counterpart in many other parts of the world, is inherently conservative. As in the past, he will continue to resist even minor changes, such as improved methods of seed selection in corn or improved curing of tobacco. More radical changes would probably be [212] resisted more strongly. The problem of "selling" new ways of producing agricultural products is difficult not only because of the

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The other urban centers of the Recôncavo:

	1950 Population
Maragogipe	9,744
Muritiba	7,452
Cruz das Almas	6,758
São Gonçalo	3,771

are all local trade and cigar manufacturing centers. Maragogipe is a port of minor importance.[37] The other urban centers have inland locations, near the inner edge of the Crystalline Uplands.[38]

Near the Recôncavo are four urban centers which have minor but appreciable effect upon its agricultural economy:

	1950 Population
Santo Antônio de Jesus	11,417
Nazaré	11,215
Castro Alves	6,479
Serrinha	4,602

Santo Antônio de Jesus and Nazaré are located along the southern periphery of the Recôncavo, and Castro Alves and Serrinha on the southwestern and northwestern periphery, respectively. All these centers are on one of Bahia's two main railroads, both of which terminate at the Bay--at Salvador or at São Roque do Paraguaçu.[39]

In 1950 the nine major urban centers of the Recôncavo had 100,000 to 120,000 workers in industry, transportation, and merchandising.[40] In all cities of the Recôncavo, except Salvador, the industrial workers almost exclusively were engaged in processing agricultural products--in sugar refining, cigar manufacturing, and slaughtering. Except for some of the animals slaughtered in Feira de Santana and the poorer grades of tobacco brought in from the sertão, these agricultural products originate in the Recôncavo.

The industrial structure of Salvador is more complex. It processes agricultural products from the Recôncavo, but also from other parts of the state, notably cacao. There is a small textile industry. It is probable that the majority of the industrial workers are employed in numerous small service industries which supply Salvador

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231 241 [311] [554] Livestock production, which offers social prestige as well as economic gain, may occupy land within the cultivated area which more profitably could be devoted to crops. These factors, together with the eccentricities of political boundaries and the vagaries of terrain features, help to produce many distinctive local variations of the general geographical pattern of cultivation and of specific crops.

241 As will be seen in the following discussion, both land rotation (field and fallow) and permanent systems of cultivation are practiced in the Recôncavo. Under the land rotation system, the field is planted for a single year or for several years and is then abandoned to wild vegetation for a fallow period which, in some areas of the Recôncavo, has been reduced to as little as five years. Under the system of permanent cultivation, cropping is either continuous or is interrupted only by brief, widely-spaced fallow periods--in the sugar cane area, four years of cultivation are followed by one year of fallow. The significance of the data on the per cent of the area in cropland depends in part upon the system of cultivation employed.

127 241 231 Sources of Data. The statistical data used in the analysis of crops and animals in the following sections were drawn almost exclusively from two sources. Produção Agrícola: 1948[2] was the only source available with relatively complete data, gathered on a consistent basis, for the area, production, and value of the principal crops of Brazil by município units. This basic source has been supplemented by data for livestock taken from "Pobulação Pecuária em 31/12/1948."[3] In general these two sources provide a reasonably accurate and detailed statistical basis for the analysis of crops and livestock.

127 241 However, a careful inspection of the crop data, and especially the calculation of crop yields by combining area and production data, revealed obvious errors in the figures in a number of instances. Usually

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Supplementary Crops
(Subsistence and Commercial):

Pineapple (Abacaxi)	168	hectares
Rice (Arroz)	61	"
Tomatoes (Tomate)	46	"
White Potatoes (Batata inglêsa)	44	"
Cotton (Algodão)	40	"
Onions (Cebola)	14	"
Garlic (Alho)	5	"
Green or Snap Beans (Fava)	4	"

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311 On the basis of the above figures, the total cultivated land in the Recôncavo in 1948 was about 80,000 hectares. In addition to the above,
245 there are a number of tree crops, not cultivated in the true sense, which are important in the agricultural complex. More often than not these "crops" are of spontaneous origin.

[192]

African Oil Palm (Dendê)
Mango (Manga)
Jack Fruit (Jaca)
Cashew (Caju)
Bread Fruit (Fruta de pão)

231 The following animals are important in the livestock economy of the Recôncavo:

[192]

Cattle (Bovinos)
  Cows (Vacas)
  Oxen (Bois de trabalho)
Sheep (Ovinos)
Goats (Caprinos)
Swine (Suinos)
Donkeys (Asininos or Burros)
Mules (Muares)
Horses (Eqüinos or Cavalos)

These animals will be discussed in the chapter on animal industry (Chapter VII).

244 Manioc. Manioc was one of the most important cultivated plants which the Portuguese colonists borrowed from the Indians of Brazil.
[175] [262] [178] [565] Flour made from the manioc root, farinha de mandioca, was the basic subsistence food of the colonial sugar economy and remains today the principal element of the diet of much of the Brazilian lower class.
006 Manioc production is most notable along the coast of Brazil, from the

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249 433 is apparent that the production of the Southwestern Recôncavo and of Santo Antônio, the pre-eminent concentrations, fell away as a result of a drop in prices which began in 1947 and continued through the end of the decade. As high quality and high-cost producers, these areas were particularly hard hit by the falling price. On the other hand, Irará grows a cheaper leaf, at a lower production cost, and apparently survived the worst effects of the cut in price. The production in this município declined more slowly and then, in 1950, fell sharply as a result of the sêca (drought) which began in that year.

A comparison of the data for a longer period indicates that although production of the state of Bahia in 1946-1950 was about equal to that of 1931-1936, the cultivated area rose by about 25 per cent. Yields fell steadily during this period; the 900 to 1,000 kilograms per hectare of the early 30's had declined to 750 to 850 kilograms per hectare in the late 40's. The decline in yield, if not centered in the Recôncavo, was at least characteristic of the development of the region. The basic factor in the falling yields almost certainly was the exhaustion of the soil. In addition, manure, always costly, became increasingly expensive and scarce. Tobacco, as has been indicated, is 249 244 433 grown in conjunction with manioc under a land rotation system. The increasing demand for subsistence crops, particularly manioc, for the expanding population has put a continuously greater strain on the soil. [231] At the same time, the expansion of the cultivated area has driven out most of the livestock enterprises, increasing the cost of manure and putting it beyond the reach of many cultivators. As yields began to fall it became necessary to increase the planted area in tobacco and in subsistence crops to compensate the loss. Year by year the fallow period has been progressively shortened as the tobacco-manioc system

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311 important had less intensive cultivation than the two principal centers mentioned above.

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311 Most of the remaining crops of the Recôncavo were either minor subsistence crops of general distribution, not of themselves accounting for any strong concentration of cropland, or were major crops produced in small separated centers of intensive cultivation. The Northwestern Recôncavo corn and bean areas, the coconut plantations of the beach line, the Southwestern Recôncavo sugar cane and coffee areas, and the suburban rings of orange production were zones where the mean intensity of cropland was low or, at best, modest.

There were two zones of very low intensity of cropland which have not been discussed previously because they did not have significant concentrations of individual crops. The belt of Intermediate Hills around
[137]
[231] the Central Recôncavo sugar cane area is largely forested, the scene of very scattered cultivation, livestock enterprises, and extractive industries. This belt was used, as will be seen, to provide fuel and to maintain a livestock reserve for the adjoining sugar cane area. The forested belt between the beach line and the inland areas of sugar cane and tobacco cultivation were used primarily for extensive systems of cultivation and for the small scale production of livestock. Only around the perimeter of Salvador was this forested belt intensively used, for in this area there were orange groves, manioc gardens, and a few very small truck farms.

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178 Expansion of Cropland. There can be little question but that the Recôncavo as a whole was an area of expanding cropland in the 1940's.[31]
(161)
(434) In no other way could the increased food necessary for the growing population be supplied, for there were not then nor are there now external sources for large quantities of staples, excepting only livestock. There

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221 (3) When the first rains come, the soil of both the seed bed and the fields are worked up with a hoe so that all vegetable matter is buried and all weeds turned under.

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[417] (4) If possible the land is fertilized. Under "ideal" circumstances cattle are penned nightly over the area by means of a small temporary corral. The corral may be maintained for a long period over the seed bed, but on the field it is moved frequently so that the whole area is fertilized. Generally the resulting manure is left exposed to the sun and rain until planting time. However, this "ideal" method of fertilization is rare. A very large number of tobacco cultivators have no cattle—they are too poor and their operations are too small for livestock. Most cattle are held by fazendêiros (ranchers) who do not themselves grow tobacco. Moreover, the intensiveness of cultivation keeps the cattle population too small to provide enough manure for all local needs. Usually it is necessary to buy fertilizer. Cattle manure is sometimes purchased from a local fazendêiro. More and more, however, the tobacco cultivators are dependent upon cattle, or better still, goat manure which is trucked into the Recôncavo from the sertão. The manure is spread over the seed bed to a depth of about one inch and over the field in such depth as the quantity allows.

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221 (5) From mid-April to the end of May, depending upon the weather and the condition of the tobacco field, the seeds are planted. Almost without exception the seeds are taken from completely exhausted tobacco plants of the previous year, plants no longer able to produce salable leaf. The soil is broken open and loosened, and the seeds are sown directly into the fertilizer. Since the fertility of the seeds is very low, they are sown very thickly. The seed bed is fenced but is rarely covered. In sixty to seventy days the seedlings are ready for transplanting.

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CHAPTER VII

ANIMAL INDUSTRY

BB 231 433 BB [435] Although the Recôncavo is primarily a subsistence and commercial crop region, livestock play a significant role in the agricultural economy as beasts of burden and as a source of animal products. In 1948 there were about 800,000 to 850,000 livestock—cattle, sheep, goats, horses, asses, and mules—in the region, and the value of animal production was about Cr.$60,000,000.[1] Thus animals accounted for about 17 per cent of the total value of all agricultural products of the Recôncavo. About one quarter of the livestock were work animals essential to the operation of the agricultural economy--oxen, horses, asses, and mules.[2]

BB NB 231 233 442 443 The livestock industry of the Recôncavo is closely associated with the extensive livestock ranching economy of the Brazilian northeastern interior. In Bahia, as in most parts of Brazil, the sertão of the interior is a source region of livestock. The animals are driven from the sertão to the coastal nuclei of dense settlement and sold in the cattle market—in the Recôncavo, at the market of Feira de Santana. A portion of the cattle are slaughtered immediately to provide food for the large agricultural population, but a substantial number of cattle and the horses, asses, and mules are retained as work animals. The working cattle—oxen--are eventually slaughtered.

BB 231 Certain outlying parts of the Recôncavo share with the sertão in the role of producing livestock for the coastal market zone. Other areas, especially around Feira de Santana, function as fattening zones in which the cattle recuperate after the long drives from the interior.

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231 Where there are large numbers of work animals the conditioning and maintenance of oxen and other beasts of burden are important agricultural activities. In all areas of the Recôncavo the livestock forage on grazing land rather than cultivated pasture, and there is no livestock feeding. Thus, animal husbandry in the Recôncavo is not part of a system in which crops are raised or pasture is planted to support or fatten livestock, as is the case in mixed farming areas.

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233 Pastured Land. According to the agricultural census, the total area used as pasture in the Recôncavo in 1940 was about 280,000 hectares--only two times the total cultivated area.[3] The total area of pastured land in 1948 must have been much greater, perhaps 400,000 hectares, for there was a strong increase in the number of animals, and it seems unlikely that there was much increase in the carrying capacity of the wild vegetation.

As was suggested in the physical setting discussion, the basic grazing resources of the Recôncavo are the caatinga and agreste. These vegetation formations, modified by cultivation, fire, and grazing into capoeira--second growth--are used extensively for livestock along the perimeter of the Recôncavo, where cultivation is scattered, but also in such intensively cultivated areas as the Southwestern Recôncavo. In essence, all the uncultivated rural land of the zone of the caatinga and the agreste is grazing land, since there are few fences to restrain the large numbers of livestock.

There are scattered areas of grassland in the caatinga, the agreste, and the mata zones of the Recôncavo. Very often the caatinga of the uplands of the crystalline zone is replaced by grasses along the poorly-drained valley floors. These grassy valleys are scattered throughout the western half of the Recôncavo and are used as pasture

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233 556 311 On the other hand, ranching is a prestige activity; the rancher almost invariably is an influential and relatively wealthy member of the local community. As such, he may command for grazing purposes land which would be more profitable to the owner and to the whole economy if it were under cultivation.

231 Livestock Production. The large livestock animals which are important to the Recôncavo—cattle, asses, mules, horses, sheep, and goats--are primarily the products of ranching enterprises, i.e., livestock fazendas. Many of these animals are bred in the Sertão west and northwest of the Recôncavo and brought into the region as young stock ready for use as labor animals, as milk producers, or as mature animals ready for fattening and slaughter. However, there is some basic livestock production within the Recôncavo, especially in the outer ring of municípios. Here livestock are raised under conditions basically similar to those of the Sertão.

233 The cattle fazenda is a grazing enterprise in which the reproduction of the herd is uncontrolled; there is no selective breeding. Vaqueiros (cowboys) are employed to hold and to move the herds over vast distances. From time to time the young bulls are emasculated, and [232] as they approach maturity, these oxen are usually driven to the Recôncavo. The remaining cattle are held until maturity and then driven across the Sertão to Feira de Santana. The characteristic cattle fazenda exists in a modified form in the Recôncavo. Since the land for grazing is more restricted, the herds are smaller, and sometimes the grazing area is fenced. Second growth is the basic forage, though, as has been seen, grass here plays a relatively more important [232] role than in the Sertão. There have been a few attempts to breed selectively in the Recôncavo.

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• 231 The production of asses, mules, and horses is concentrated outside the Recôncavo. Apparently most of the work animals used in the Recôncavo--oxen as well as asses, mules, and horses--were born on the Sertão and were the products of the same ranches which produce beef animals.

In distinction to these larger animals, swine are produced in large number within the Recôncavo. Moreover, they are almost exclusively the products of small enterprises--pigs are raised in ones and twos by small farmers. They eat the household waste and root in the abandoned [443] fields and the second growth. When they are mature or when the need for cash is pressing, they are sold in the local market, either alive or slaughtered.

Most of the livestock of the Recôncavo are descendent from animals introduced into the Northeast during colonial times. In general [232] there has been little deliberate selection of strains--those animals which have survived disease, insect pests, prolonged semi-starvation, and casual abuse have conferred their characteristics upon the present generation. Thus, most of the livestock are scrubby and inbred, inefficient producers of meat, milk, or energy.

Cattle. The total cattle population of the Recôncavo was 395,000 head in 1948, and the number was still growing. There were [433] almost three times as many cattle in the region as swine, the next most numerous animal, and the value of cattle production far exceeded that of other livestock.

Almost all of the cattle of the Recôncavo are of the unspecialized and ubiquitous Indo-Brazilian strain--rangy animals with long horns and a moderate hump, hardy and strong but not producers of large quanti- [234] ties of either meat or milk. Oxen of the same breed are important in the sugar zone and in Feira de Santana, and both beef and milk cattle

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231 [234] are found in all parts of the Recôncavo, although dairying is not a highly developed enterprise. It should be noted, however, that both oxen and milk cows usually end their careers in the slaughter house.

No município in the Recôncavo had less than 2,500 cattle in 1948, but there were only two important concentrations (Map 78). The largest of these was in Feira de Santana, chiefly around the cidade. Forty per cent of all cattle in the Recôncavo were held in this area. The second, and much smaller, concentration was in the sugar cane region, with about 8 per cent of the cattle of the Recôncavo. In order effectively to differentiate these concentrations and between them and the basal distribution of the rest of the Recôncavo, it is necessary to discuss briefly the specialized forms of livestock enterprise.

[492] (1) In the sugar zone a very large percentage (probably 70 to 90 per cent) of the cattle are oxen used as labor in the cane fields (Map 79). Since these animals are grass-fed exclusively--no grain is used--and since there are many disease problems, it is necessary to maintain a large local reserve so that day to day rotation is possible. In addition, the larger enterprises maintain ranches on which oxen and other labor animals, purchased in the Sertão or at Feira de Santana, are conditioned and at which ailing or weak animals recuperate. When they are no longer useful as draft animals, the oxen are butchered and sold to the local agricultural laborers. Only small quantities of milk are produced in this zone. 234 443

(2) Salvador, and to a lesser extent Feira de Santana, have milk sheds of importance (Map 80). In addition, a very small milk shed surrounds each cidade, although Cachoeira-São Félix is not well endowed in this respect.[4] The marketing of milk is local--the only exception discovered was the sale in Salvador of milk from the município of Camassari. The dairy industry around Salvador is relatively

[TEXT CONTINUED ON PAGE 275]

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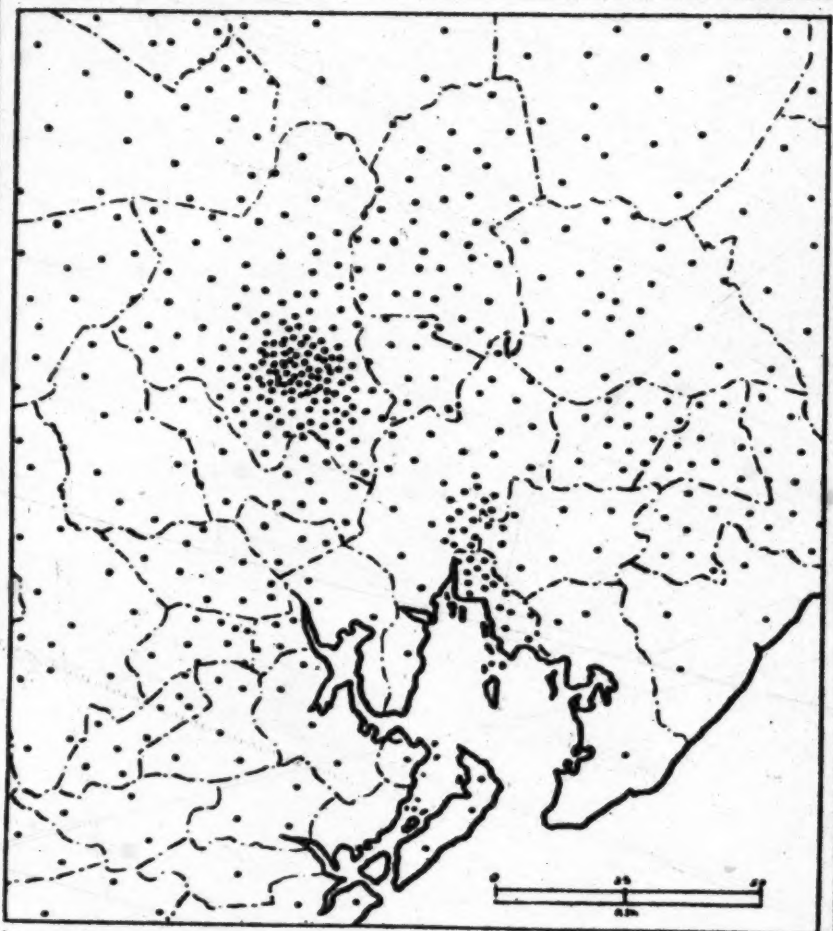

Each dot = 1,000 head

RECÔNCAVO OF BAHIA

Cattle--1948

Source of data: "População Pecuária, Em 31/12/1948."

MAP 78

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

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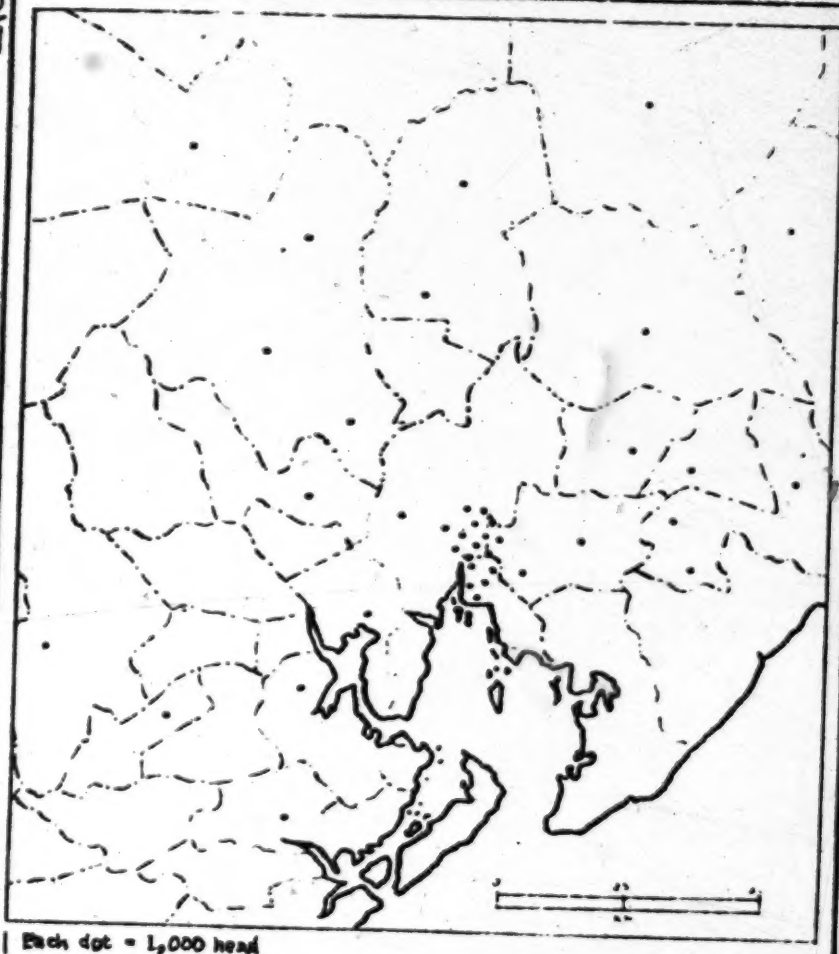

Map 79

1:Haskins K-4,5 (1952-1954) 1956 SO11 Bahia Brazilians SO11

234 443 [493] [272] The dairy industry around Salvador is relatively large-scale, as is evident in the size and number of tank trucks which peddle milk through the streets of the city, and which bear the name of local fazendas. However, the milk has a low butter-fat content, is unpasteurized, and it is expensive, and many people use powdered milk which is imported from other parts of Brazil and abroad. The Salvador dairy industry is large-scale only in relation to the small-scale operations in other parts of the region, where the small quantities of available milk are carried to the cidades on mules or asses and sold from house to house.

233 443 (3) Feira de Santana is the principal cattle market not only of the Recôncavo but also of the state of Bahia. To its market (campo de gado) are driven the cattle of the northern sertão of Bahia and from as far west as the mountains. Before or after sale many of these cattle are rested and fattened on the pastures around the cidade so that the cattle population is large but fluid. Some of these cattle are butchered locally, but many are driven to Salvador before slaughter.

231 (4) In all other parts of the Recôncavo small-scale animal husbandry is very common. Many small farmers, sharecroppers, or renters [272] have one or two cows and sometimes a calf. The milk, if any, is used [234] [443] either by the family or sold in the cidade. In addition, there are a few large cattle ranches, usually producing both milk and beef cattle. Thus the unspecialized livestock economy of most of the Recôncavo is distinct from the labor animal concentration in the sugar zone, the Salvador milk shed, and the market animal concentration around Feira de Santana.

233 The pattern of distribution of cattle outside the Recôncavo is not markedly different from that of the adjacent areas within the region. In this respect Mata de São João is like Pojuca, Castro Alves like Santo Estêvão, and Nazaré like São Felix-Maragogipe. However, the

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

233 of Cachoeira as a regional center could account for some decline in
433 its cattle population. On the other hand, the almost four-fold increase in cattle in São Francisco, more than two-fold increase in Itaparica, and almost two-fold increase in Jaguaripe, indicated by the data, are not credible in view of the general agricultural situation. A moderate increase in the cattle population of these areas, to serve the growing Salvador market, is reasonable enough, but not such an astronomical expansion.

• 231
433 Swine. Although much less numerous than cattle--there were 135,000 swine in the Recôncavo in 1948--pigs are similary ubiquitous. These animals are particularly important in Feira de Santana and Irará, in the Southwestern Recôncavo, and on the island of Itaparica (Map 81). In the Feira de Santana-Irará area swine were much less numerous than cattle, but in the Southwestern Recôncavo and on Itaparica they were the most common livestock animal. Pigs were also the most numerous livestock in adjoining Nazaré, Aratuípe, and Jaguaripe.

The swine population of the Recôncavo is almost surely increasing. This increase is strongly indicated by the evident general agricultural development of the Southwestern Recôncavo, the main center of swine production. A comparison of the 1940 and the 1948 data shows an increase which is in excess of the probable errors of the data. The pattern of change within the Recôncavo shown by the 1940 and 1948 data is irrational for many municípios, although the strong increases shown for the Southwestern Recôncavo and for Feira de Santana are reasonable in view of the observable development of these areas.

231
[472] In the cattle industry, big enterprises are dominant, but swine are produced almost exclusively by small holders, renters, and share-croppers, each with two or three pigs. The swine are tough, thick-hided

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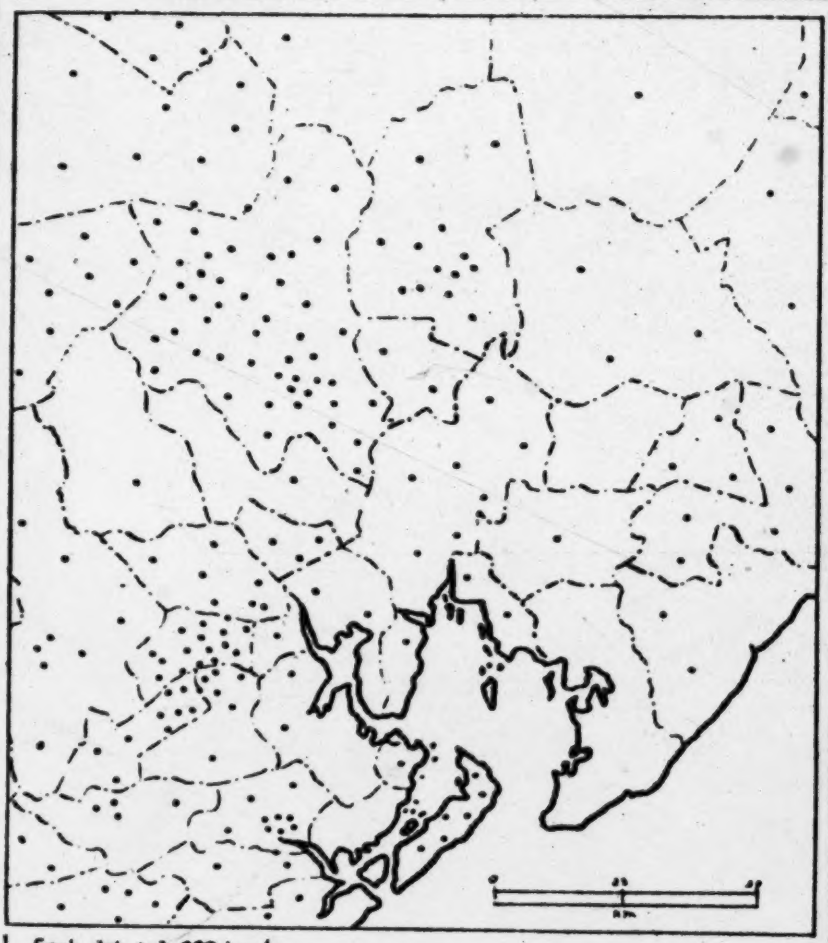

Each dot = 1,000 head

RECÔNCAVO OF BAHIA

Swine--1948

Source of data: "População Pecuária, Em 31/12/1948."

MAP 81

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

231 [442] animals, rangy and thin, which can and do exist on what they can forage in the second growth or whatever table waste is available. They are marketed one or two at a time in the local markets or are purchased by local buyers who transport a load of pigs into Salvador by truck or sailing boat (saveiro).

231 433 Sheep and Goats. Neither sheep nor goats are characteristic animals of the Recôncavo, but they are found in small numbers in several of its municípios. In 1948 there were about 80,000 sheep and 40,000 goats in the region. Almost all of these animals were low-grade but hardy local varieties. Goats are most numerous on the western sertão, but they are found in moderate numbers along the western edge of the Recôncavo (Map 82). The distribution of sheep is similar, but more uneven, and there is a conspicuous concentration around Feira de Santana (Map 83).

Neither animal ranks very high in the total livestock population of any Recôncavo município. Beyond the northern Recôncavo, from Conceição do Coite to Esplanada, sheep are the most numerous or second most numerous of all animals. In the west, goats are more important--these are the most numerous of all animals in Riachão do Jacuípe and are as numerous as cattle in Ipirá. Apparently the number of both animals is growing. Goats are increasing most rapidly, especially within the Recôncavo. The number of sheep is increasing slowly and very irregularly. In the dry marginal zone of the Recôncavo, sheep and goats are produced on large fazendas in much the same manner as cattle. This is also true for the sheep around Feira de Santana. In many areas, however, small holders occasionally run a few goats and, less frequently, sheep in the second-growth.

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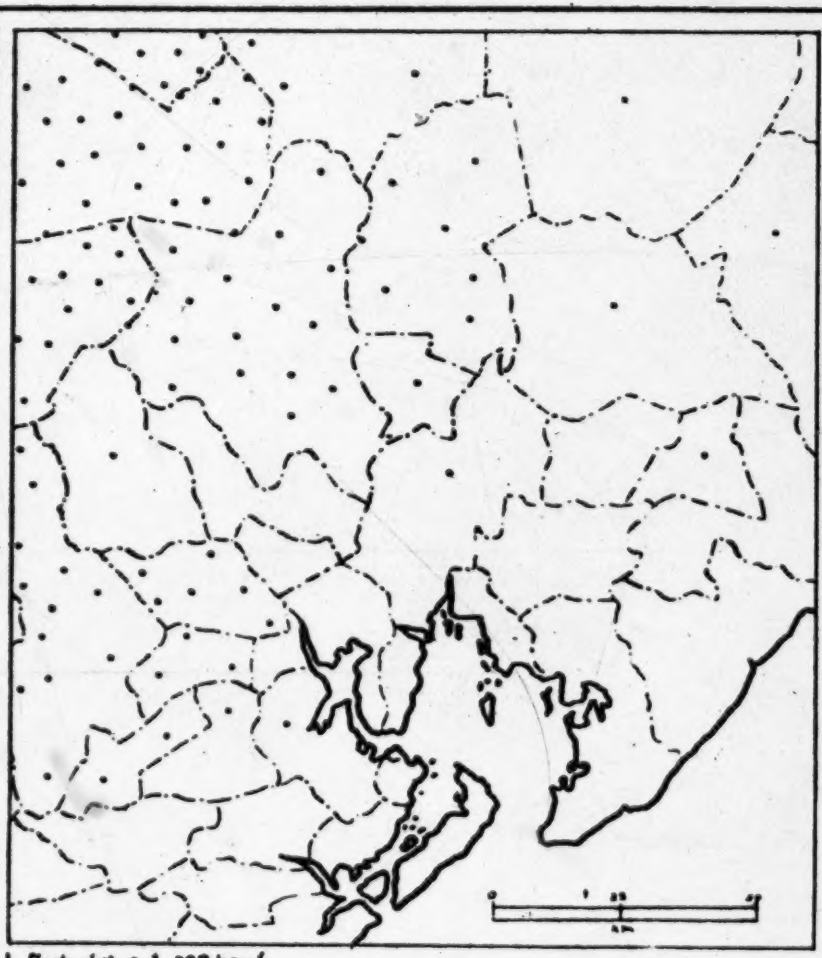

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RECÔNCAVO OF BAHIA

Goats—1948

Source of data: "População Pecuária Em 31/12/1948."

MAP 82

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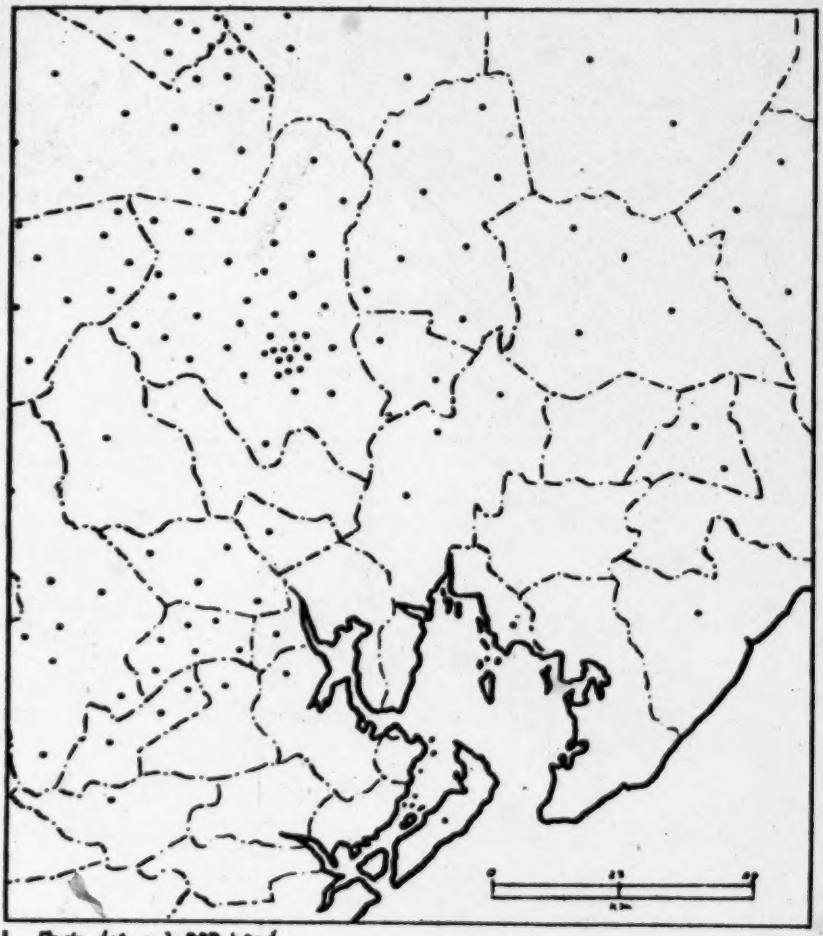

Each dot = 1,000 head

RECÔNCAVO OF BAHIA

Sheep--1948

Source of data: "População Pecuária, Em 31/12/1948."

MAP 83

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231 Summary--Livestock Produced for Animal Products. Except for the oxen, all the animals discussed above are raised for meat or for other animal products rather than for use as beasts of burden. The distribution of these animals, without regard to kind, is summarized on the accompanying map of non-work animals (Map 84).

Feira de Santana has the outstanding concentration of these non-work animals in the Recôncavo and, undoubtedly, in Bahia. To a considerable degree this concentration signalizes the importance of the sertão as a producer of livestock and of the Recôncavo as a consumer, since many of the animals around Feira de Santana are transients moving from the former to the latter. The principal market served by [443] Feira de Santana is the city of Salvador, but the rural areas of all the Recôncavo north of the Bay and the estuary of the Rio Paraguaçu also secure much of their livestock through the campo de gado at "Feira."

The only other concentration of livestock raised for animal products is in the Southwestern Recôncavo. Most of these animals are [433] used to feed the large local population within the sub-region, which seems to be relatively self-sufficient as far as livestock production is concerned.

231 Asses and Mules. Asses and mules combined are the most numerous 492 and widely distributed work animals in the Recôncavo. There were in 1948 about 115,000 of these two animals in the region (Map 85). Over one-half were found in Feira de Santana, where they are raised locally in large numbers and where animals brought from the Sertão are conditioned for sale. The asses and mules of the Recôncavo are both very small animals and are generally used as burden carriers, although the larger mules--still very small by United States standards--are used as riding animals.

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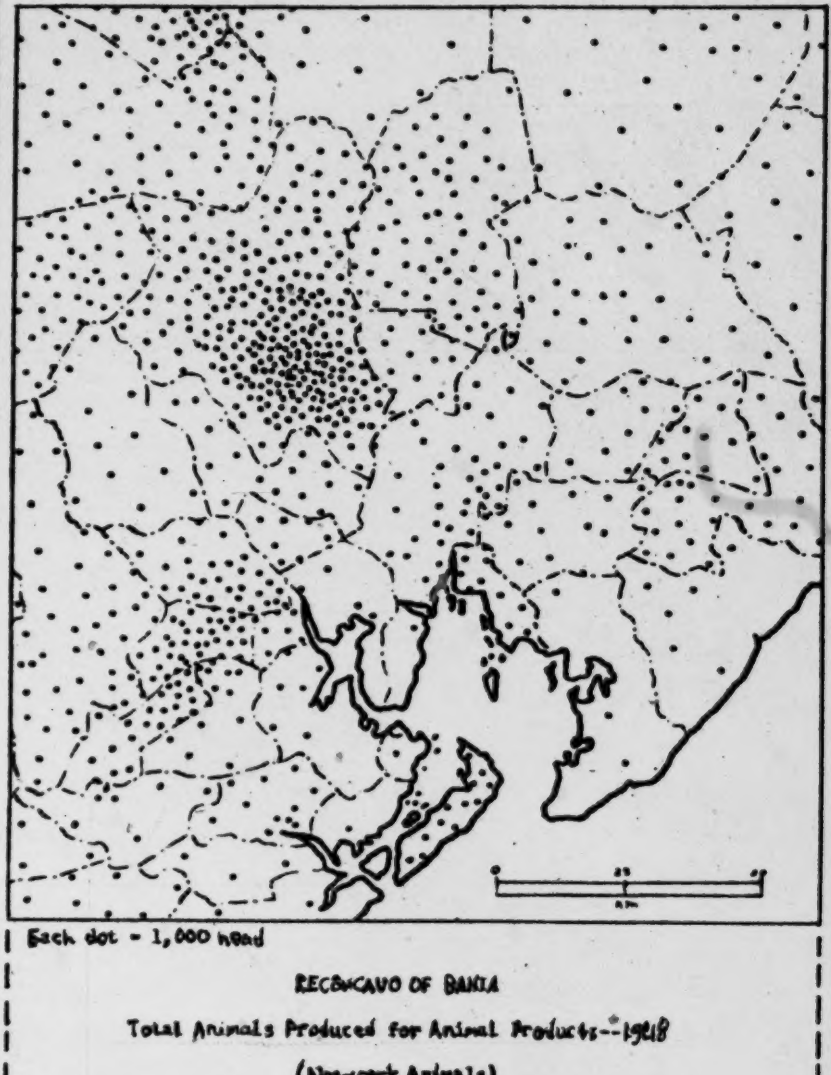

Each dot = 1,000 head

RECÔNCAVO OF BAHIA

Total Animals Produced for Animal Products--1918

(Non-work Animals)

MAP 84

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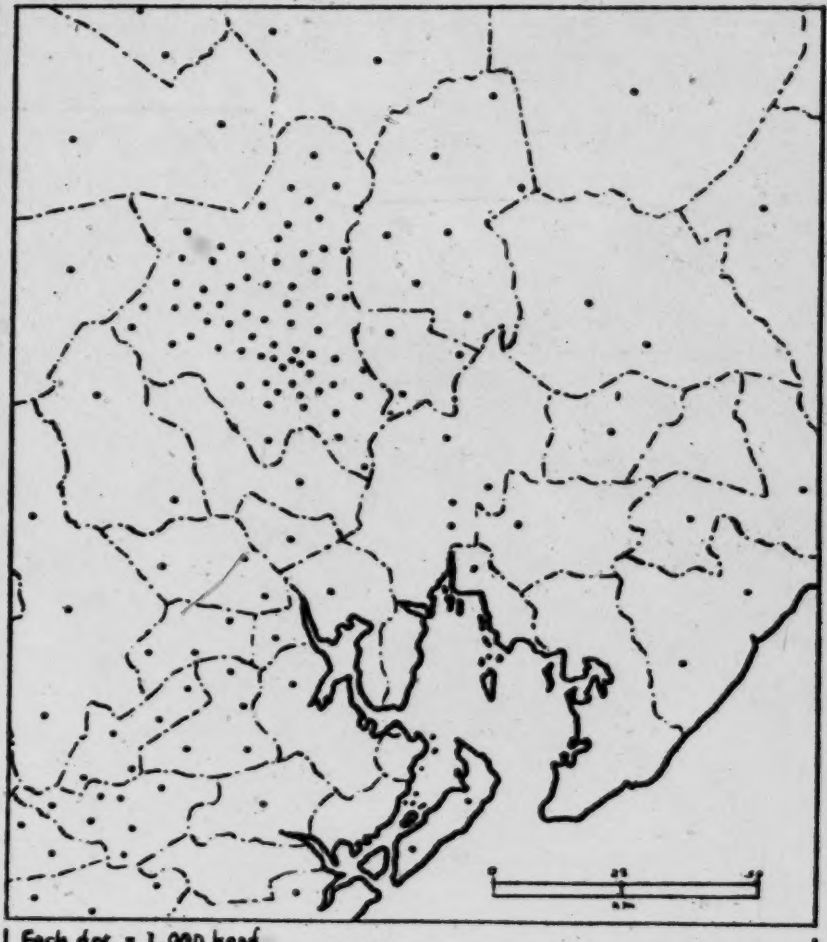

Each dot = 1,000 head

RECÔNCAVO OF BAHIA

Asses and Mules—1948

Source of data: "População Pecuária, Em 31/12/1948."

MAP 85

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

231 492 Asses and mules were the second most numerous animals in an area from São Gonçalo and Feira de Santana to Canassari--a zone which roughly corresponds to the northern part of the tobacco-manioc region. In this part of the crop region cultivation is more scattered and road transportation less well developed than in the Southwestern Recôncavo, and presumably the animals are needed to pack the tobacco crop to the markets.[6]

Work Animals. The work animals of the Recôncavo include oxen, horses, asses, and mules. As the accompanying map demonstrates (Map 86), the chief concentration of all work animals, without regard to type, was around Feira de Santana, the supply center for the region. Many of these animals were young or were being conditioned for market. On the other hand, most of the work animals of the smaller concentration in the sugar cane region were actually in use.

According to the official data, the total number of work animals in the Recôncavo increased from 85,000 to 215,000 between 1940 and 1948. Almost certainly there has been a strong increase, but such a tremendous rise in work animal population seems excessive; probably the 1940 total is too low, and perhaps the 1948 figure is excessive, though in view of the number of animals which are evident in the Recôncavo, not very much so.

231 Conclusion. Although the Recôncavo produces a moderate number of livestock of all types--except horses, asses, and mules--it has a great and continuing deficit. The livestock deficiencies of the region are supplied by the sertão in a movement of animals which had its inception in the initial century of colonization. Associated with the exchange 231 438 of animals from the sertão for products from the littoral is one of the historic institutions of the Northeast--the campo de gado of

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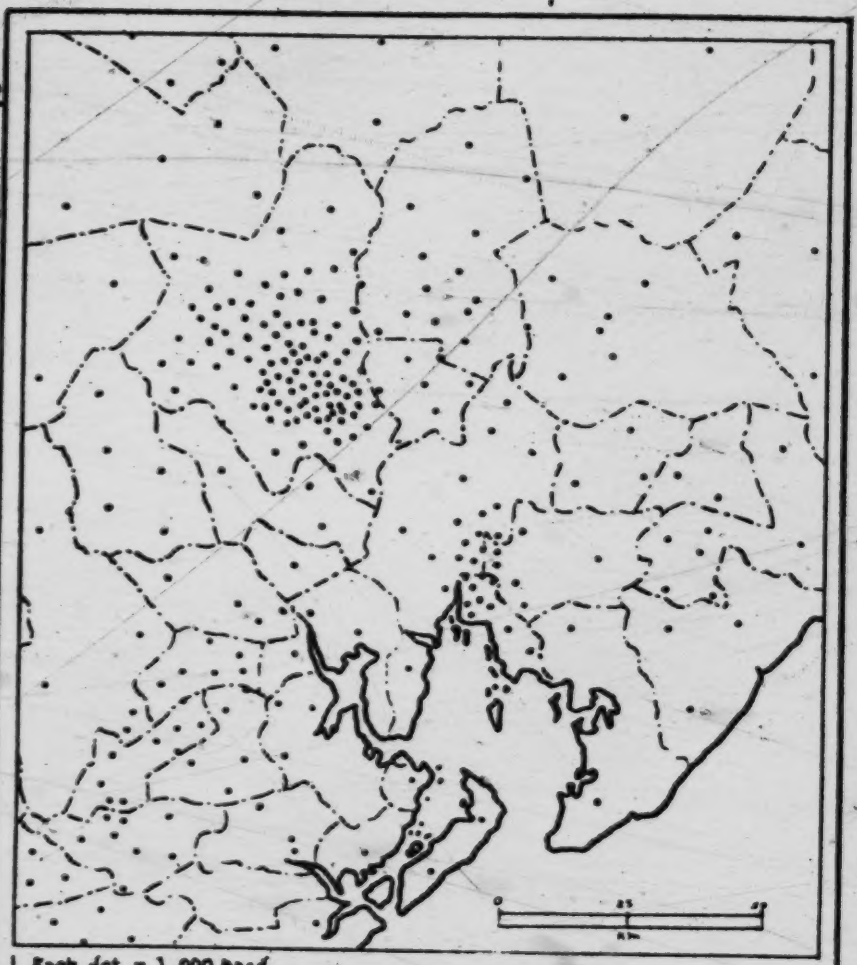

MAP 86

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Brazil SL1

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438 Feira de Santana.. From "Feira" the livestock are distributed to the Recôncavo to be used as beasts of burden, as food, or for both.

BB
231 The livestock population of the Recôncavo, as well as the livestock market, is centralized within the município of Feira de Santana. [433] In part this concentration reflects the relatively great demand for beef in Salvador, so that at any one time the number of livestock passing through Feira de Santana must be great. The same concentration is evident for work animals. This suggests that the mortality of work animals in the Recôncavo must be very high. There is no data to substantiate this hypothesis, but the emaciated appearance, poor diet, and calloused treatment of beasts of burden in the Recôncavo suggest that it is highly probable.

BB
231
241
433 The concentrations of livestock in the sugar cane and tobacco-manioc regions contribute significantly to the general agricultural importance of these areas. The differences in the character of the livestock populations reflect in a large measure the different requirements of the crop cultivation systems of the two regions.

B
231
241 The interdependence of the livestock-producing sertão and the areas of cultivation, signalized by the cattle fairs, is a characteristic feature of Brazilian agricultural life. The interior, from Ceará to Rio Grande do Sul, is a reservoir from which are drawn the cattle and the work animals for the main centers of crop cultivation and for the cities.

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

CHAPTER VIII

AGRICULTURAL PROPERTIES

241 231 423 311 The agricultural properties of the Recôncavo are diverse in functional type, tenure, and size. In most municípios there are to be found three basic production types: crop cultivation units, mixed crop cultivation and livestock producing units, and ranches. The properties of any local area may be owner or administrator operated, rented, or, in some areas, occupied informally by "squatters." In distinction to most agricultural areas of the United States, the Recôncavo has a very large number of extremely small agricultural properties, frequently with less than 2 hectares. There are also a number of large properties with more than 10,000 hectares; and in many areas large and small properties are closely intermixed.

241 423 184 Despite the widespread diversity of agricultural properties, there are distinct regional patterns which are based upon the predominance of certain types and sizes of properties and upon characteristic modes of possession. The regional patterns of agricultural properties correspond in a general manner to the crop regions delineated in the previous discussion.

241 423 [129] The basic source of information about the agricultural properties of the Recôncavo is the 1940 economic census.[1] No more recent source is as yet available to replace or to verify or correct these fifteen year old data. However, generalizations based upon these data were substantiated in most cases by the field investigations undertaken for the present study. It is apparent that in so traditional a region as the [178] Recôncavo, the institutional characteristics of agriculture, property types included, change very slowly.

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

241 423 127 311 Of the 12,500 square kilometers of the Recôncavo, only about 800,000 hectares were enumerated in the agricultural section of the 1940 economic census--71 per cent of the total land area. In the various municípios of the region, the enumerated area varied from 39 per cent of the land surface in Alagoinhas to 110 per cent in Itaparica (Map 87). In a few cases, such as Itaparica, the area given in the agricultural section of the census exceeded the official total area of the município.[2] Where the political boundaries were not delimited precisely, properties may have been credited to the wrong município. More probably, however, these situations result from the over-estimation of the areas of individual properties--precise surveys of agricultural properties are virtually unknown.

There was a general correspondence between the intensity of land use (Map 2) and the relative area included in the 1940 agricultural census. This latter area will be referred to as "enumerated area" in the following discussion. Those lands not included in the agricultural census were urban areas, public domain, or in a few cases, private land held for speculation. However, not all of the unenumerated land was unused from the agricultural point of view, for in some of the less densely settled areas "squatters" are quite common.

241 231 423 311 Production Types of Agricultural Enterprises. In the 1940 census the agricultural properties of Brazil were divided into six classes, based in part upon the type of production and in part upon the scale of operation. The three main functional types were agricultura (crop cultivation), agro-pecuária (crop cultivation with livestock production), and pecuária (livestock production). In this context it is important to note that while agro-pecuária may include mixed agriculture--in the sense of functionally interdependent crop and livestock production

[TEXT CONTINUED ON PAGE 292]

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

241 within the individual agricultural unit--properties classifed within
231 the group may have merely co-existing crop and animal production. In
423 the Recôncavo, cultivation and animal husbandry are carried on separately
311 within the individual properties, except (1) where labor animals are involved, or (2) where manure for tobacco cultivation is produced on a tobacco-growing farm. Each of the three main production types was classified as either a large-scale or a small-scale unit, on the basis of the amount of cropland, the number of animals, or both.[3] The distribution of the 27,513 agricultural properties and the 837,699 hectares of enumerated land of the Recôncavo among the various production and scale-of-operation classes is shown on the accompanying table (Table XIV).

Most of the agricultural properties of the Recôncavo were small-scale units which were engaged solely in crop cultivation or which produced both crops and livestock. Ninety-nine per cent of all properties, encompassing 58 per cent of the farmland, were small-scale units. The number of cultivation and of mixed cultivation-livestock units was approximately the same; the mixed units were, on the average, more than twice as large as the exclusively crop producing units. Although the number of purely livestock producing units--ranches--was small, the total area which they encompassed was relatively large, and the mean size of individual units was over 450 hectares. Even more notable is the fact that less than 250 large-scale livestock units, about 1 per cent of the total number of units, held 13 per cent of the land in agricultural properties.

231 233 Livestock Units. Agricultural enterprises whose activities were confined exclusively to livestock production were found in every município of the Recôncavo and in every adjoining município in 1940. In most areas, however, the number of such livestock units was very

[TEXT CONTINUED ON PAGE 294]

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

TABLE XIV

AGRICULTURAL PROPERTIES OF THE RECÔNCAVO--CLASSIFIED BY TYPE AND SCALE OF OPERATION--1940

	Crop Cultivation Only	Crop Cultivation and Livestock Production	Livestock Production Only	All Types
	Number and Area of Properties			
All Properties:				
Number	13,221	13,587	705	27,513
Area*	212,545 ha.	493,210 ha.	131,944 ha.	837,699 ha.
Mean Size	16 ha.	36 ha.	187 ha.	30 ha.
Small-Scale Properties:				
Number	13,144	13,558	458	27,160
Area	167,406 ha.	298,408 ha.	26,932 ha.	483,746 ha.
Mean Size	13 ha.	21 ha.	59 ha.	18 ha.
Large-Scale Properties:				
Number	77 ha.	29 ha.	247 ha.	353 ha.
Area	28,703 ha.	12,649 ha.	107,199 ha.	148,551 ha.
Mean Size	373 ha.	436 ha.	434 ha.	421 ha.
	As Per cent of the Number and Area of all Properties			
All Properties:				
Number	48	49	3	100
Area	25	59	16	100
Small-Scale Properties:				
Number	48	49	2	99
Area	20	35	3	58
Large-Scale Properties:				
Number	-	-	1	1
Area	3	1	13	18

*Because the census does not give data on the size of some units in order to preserve the anonymity of the information, the totals do not precisely equal the sums of the various components.

Source: Recenseamento Geral do Brasil: 1940. Censos Econômicos, Bahia, Vol. II.

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1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

231 233 small (Map 88). Within the Recôncavo, only the eastern part of the Central Recôncavo and the environs of Feira de Santana had even a moderate number of ranches. Livestock enterprises generally occupied less than one-fifth of the enumerated area (Map 89). These properties were relatively important in the Northwestern and Central Recôncavo, a reflection of the importance of ranching and cattle fattening in the northwest and of the need for work animals in the sugar cane region. In the Southwestern Recôncavo crop cultivation is too intensive and widespread to share the land with many ranches. Except in the southwest, 20 per cent of the total enumerated area was in livestock units along the limits of the Recôncavo. In relation to the total area, the extent [311] of livestock properties varied from place to place along the border zone (Map 90). Beyond the Recôncavo, ranching is more important in the crystalline areas, whether caatinga or agreste, than in the Tertiary taboleiros.

231 233 433 As has been pointed out, large-scale properties are especially important among the livestock production units. In most parts of the Recôncavo the ratio of the area in large-scale and in small-scale livestock units was about three to one. The analysis of the mean size of large-scale livestock units, plotted on Map 91, emphasizes the diversity within the region and discloses the tremendous size of the ranches in the coastal agreste northeast of the Recôncavo. Since the number of large-scale livestock units was small and the size of the units highly variable, the mean values for the areas of these properties may be deceiving. Nevertheless, it is significant that the mean size of livestock unit was large in the Central Recôncavo, where there are a number of fazendas in the forested hills around the sugar cane region. These [313] [249] properties are used primarily as sources of firewood for the usinas

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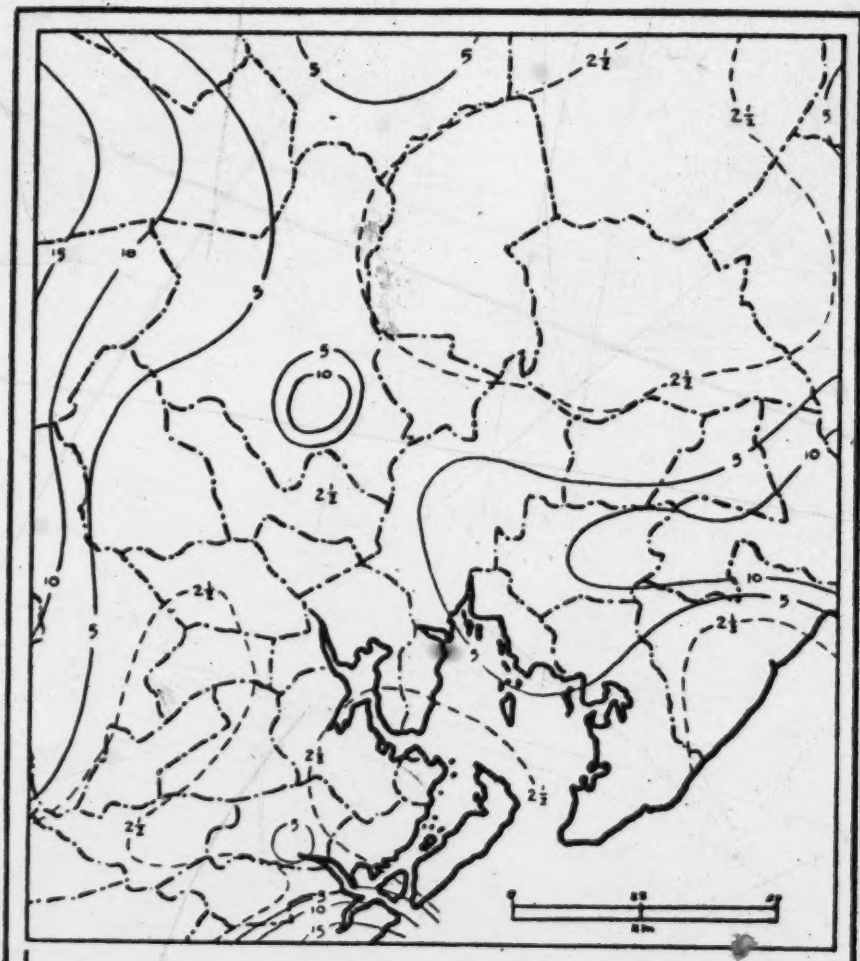

RECÔNCAVO OF BAHIA

Per cent of All Agricultural Enterprises Which Were Livestock Enterprises--1940

Source of data: Recenseamento Geral do Brasil: 1940. Censos Econômicos, Bahia, Vol. II.

MAP 88

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

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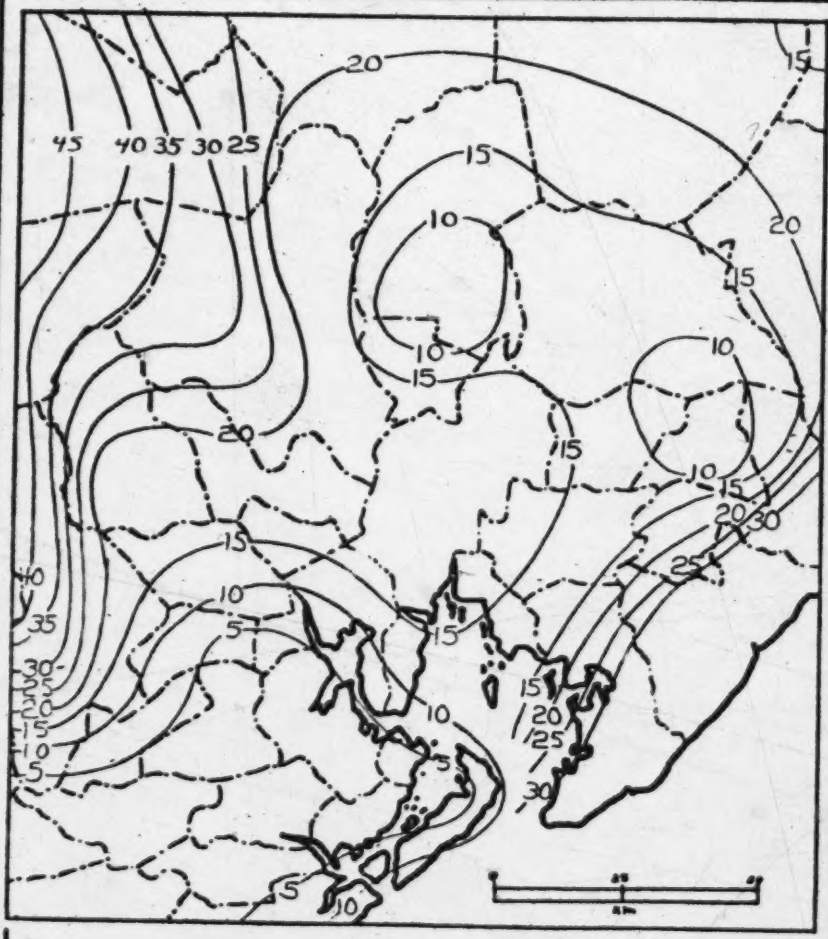

RECÔNCAVO OF BAHIA

Per cent of the Enumerated Area in

Livestock Enterprises—1940

Source of data: Recenseamento Geral do Brasil: 1940. Censos Econômicos, Bahia, Vol. II.

MAP 89

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

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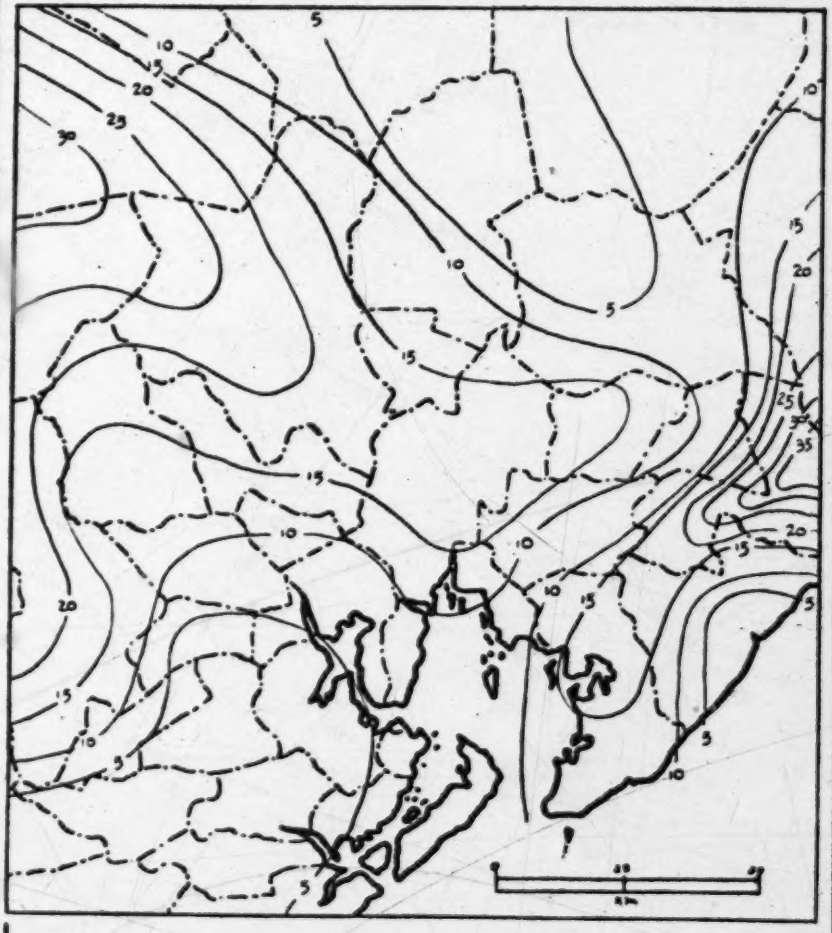

RECÔNCAVO OF BAHIA

Per cent of the Total Land Area in

Livestock Enterprises--1940

Source of data: Recenseamento Geral do Brasil: 1940. Censos Econômicos, Bahia, Vol. II.

MAP 90

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

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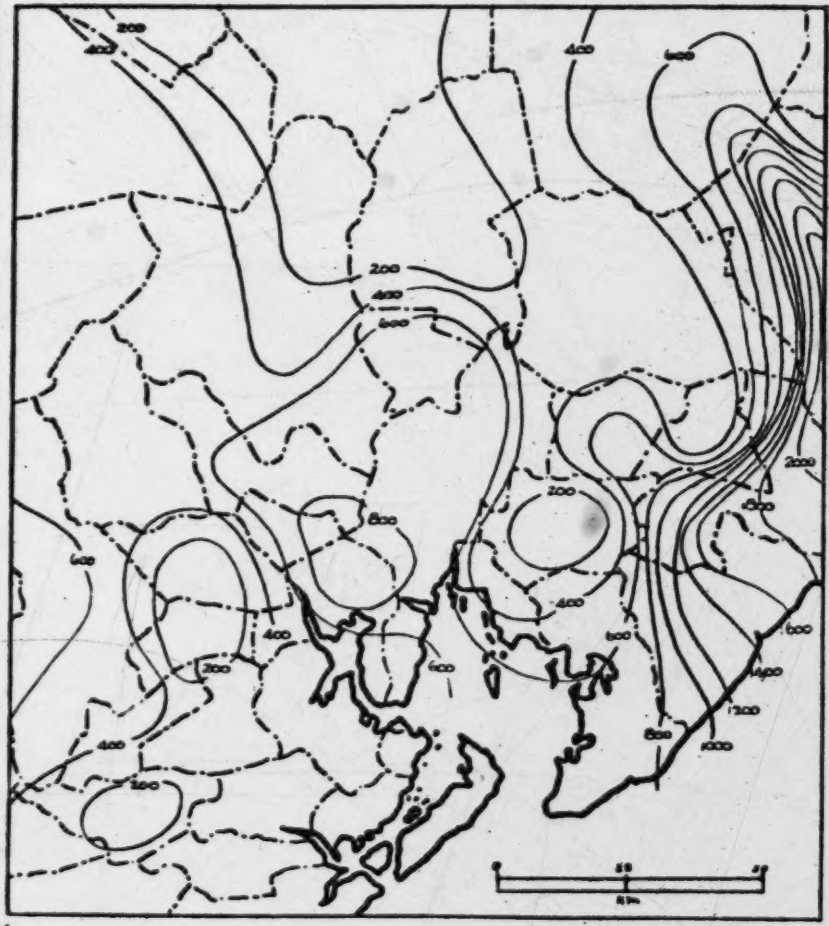

RECÔNCAVO OF BAHIA

Mean Size of Large-Scale Livestock Enterprises—1940

In Hectares

Source of data: Recenseamento Geral do Brasil: 1940. Censos Econômicos, Bahia, Vol. II.

MAP 91

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

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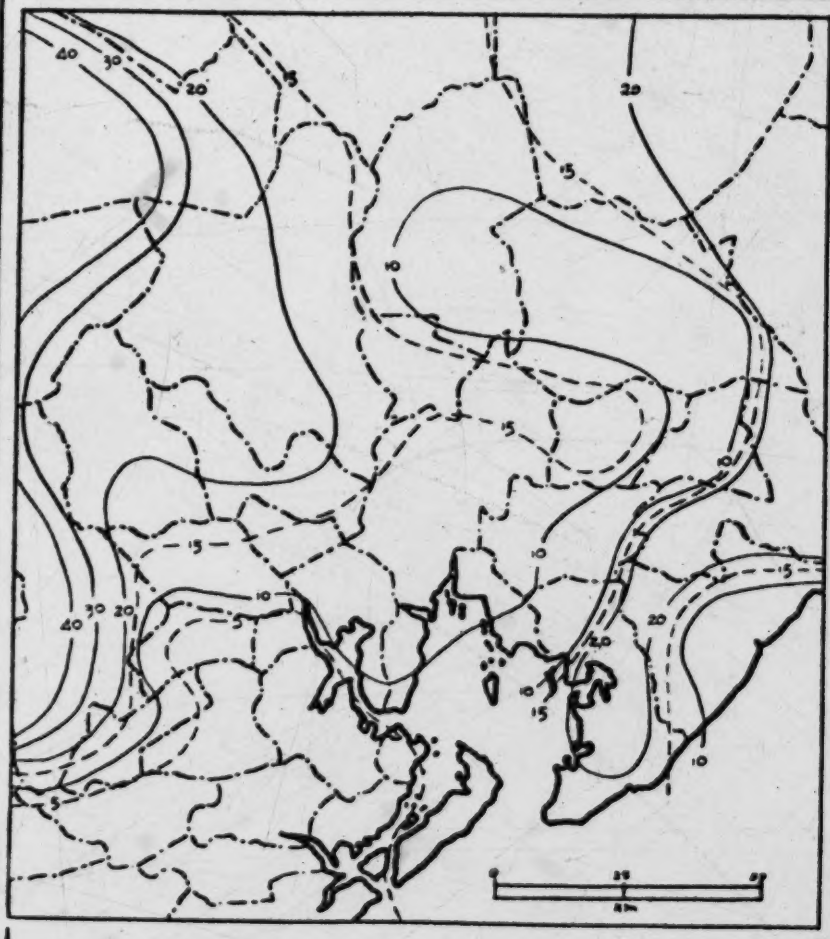

RECÔNCAVO OF BAHIA

Per cent of the Enumerated Area in

Large-Scale Livestock Enterprises—1940

Source of data: Recenseamento Geral do Brasil: 1940. Censos Econômicos, Bahia, Vol. II.

MAP 92

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

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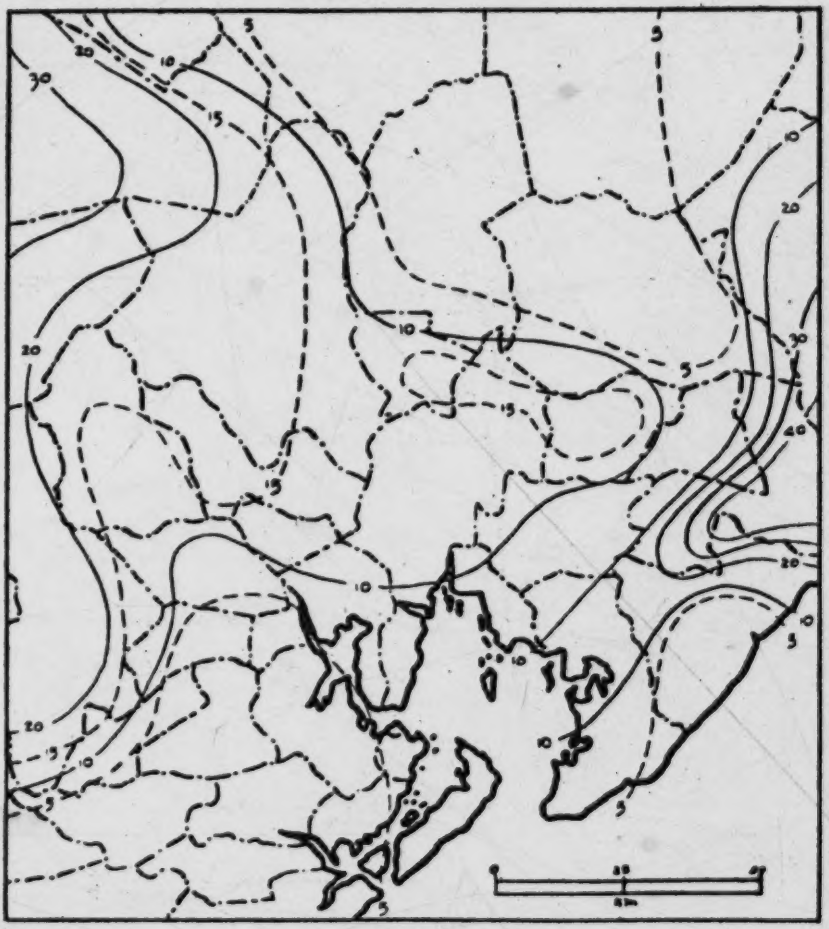

RECÔNCAVO OF BAHIA

Per cent of the Total Land Area in

Large-Scale Livestock Enterprises—1940

Source of data: Recenseamento Geral do Brasil: 1940. Censos Econômicos, Bahia, Vol. II.

MAP 93

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

and locomotives of the cane area, but, as has been pointed out previously, they have supplementary livestock production.[4]

Of the 247 large-scale livestock units in the Reconcavo, 65, with a total area of almost 30,000 hectares, were in the município of Feira de Santana (Maps 92 and 93). Another 39, with about 16,000 hectares of land, were in the Central Recôncavo. Each of these two areas has a distinctive character: the Central Recôncavo fazendas de gado--cattle ranches--supply oxen and horses, asses, and mules to the sugar economy; the large fazendas of Feira de Santana, with extensive grassy pastures, serve the campo de gado--cattle market--of the cidade and thereby the whole economy of the Recôncavo.

Crop Cultivation Units. Almost one-half of all farms in the Recôncavo produced no animals in 1940. In the marginal areas of the region, excepting always the southwest, less than one-third of the farms were pure crop cultivation units (Map 94). On the other hand, crop farms were particularly numerous on the southern littoral, where the forests are not salutary to livestock--except swine and fighting cocks. The Northern Recôncavo, where ranching is not an important activity, had a relatively large number of crop cultivation units, as had Salvador and the adjoining coastal município, Camassari.

Relative to both the enumerated and the total area, the purely crop cultivation units were very important in Itaparica and Santo Amaro and unimportant around the border zone of the Recôncavo (Maps 95 and 96). On Itaparica and in the sugar cane region, crop cultivation units occupied over one-half the total land area--over 85 per cent on the island of Itaparica. The size of crop cultivation properties in the Recôncavo was generally small, but there were very great local differences (Map 97). The tobacco-manioc region, especially in the Southwestern

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1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

249 The tobacco-manioc region, especially in the Southwestern
244 Recôncavo, was a zone of very small properties--in Cruz das Almas and
311 Coração de Maria the mean size of crop cultivation units was 9 hectares,
423 while in São Filipe it was only 5 hectares. This zone of small crop cultivation units is part of a belt, parallel to but well back from the coast, which originates in the serras of the coffee zone, crosses the Recôncavo along the caatinga-mata transition, and follows the caatinga-agreste boundary northward along the eastern edge of the Tertiary tabuleiros. The small-property belt thus lies between the littoral, with its large plantations of sugar cane and its ranches, and the dry sertão, with its extensive livestock economy.

241 The Central Recôncavo was a zone of large crop cultivation proper-
249 ties, primarily sugar cane plantations. Although there are a large
311 number of livestock in the sugar cane region, the plantations use,
423 rather than produce, animals and were thus classified as crop cultivation units. The plantations of the sugar cane area are very diverse as regards size, and many of the individual properties are now operated collectively by large usinas. Nevertheless, there are still a number of small properties, producing cane which is sold to the large mills.

241 Mixed Crop Cultivation-Livestock Producing Units. A little over
231 one-half of all the farms in the Recôncavo produced livestock as well
233 as crops. These units occupied almost 60 per cent of the total area
311 of all properties. However, the area in which over half the properties were mixed units was limited to a broad perimeter zone which included all the outer municípios of the Eastern, Northwestern, and Southwestern Recôncavo (Map 98). In Itaparica and Santo Amaro, where crop cultivation units were very important, there were relatively few mixed units.

244 The maps of the area in mixed units in relation to enumerated
249 area (Map 99) and total area (Map 100) confirm the observation that.
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[TEXT CONTINUED ON PAGE 311]

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

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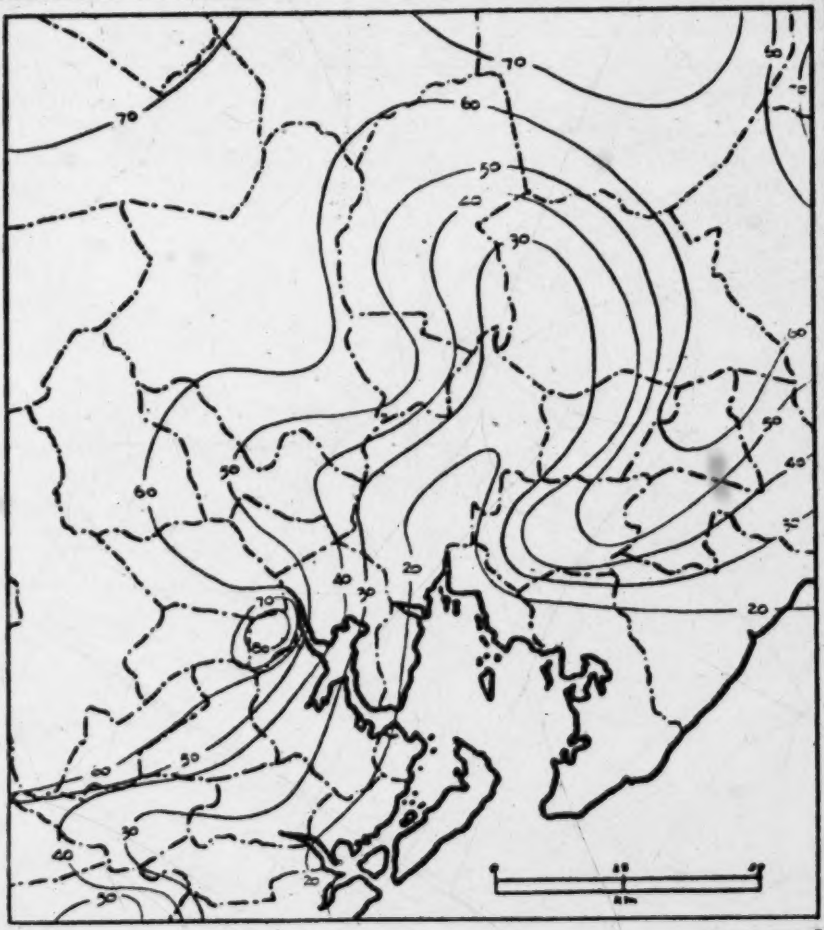

RECÔNCAVO OF BAHIA

Per cent of All Agricultural Enterprises Which Were Crop-Livestock Enterprises--1940

Source of data: Recenseamento Geral do Brasil: 1940. Censos Econômicos, Bahia, Vol. II.

MAP 98

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

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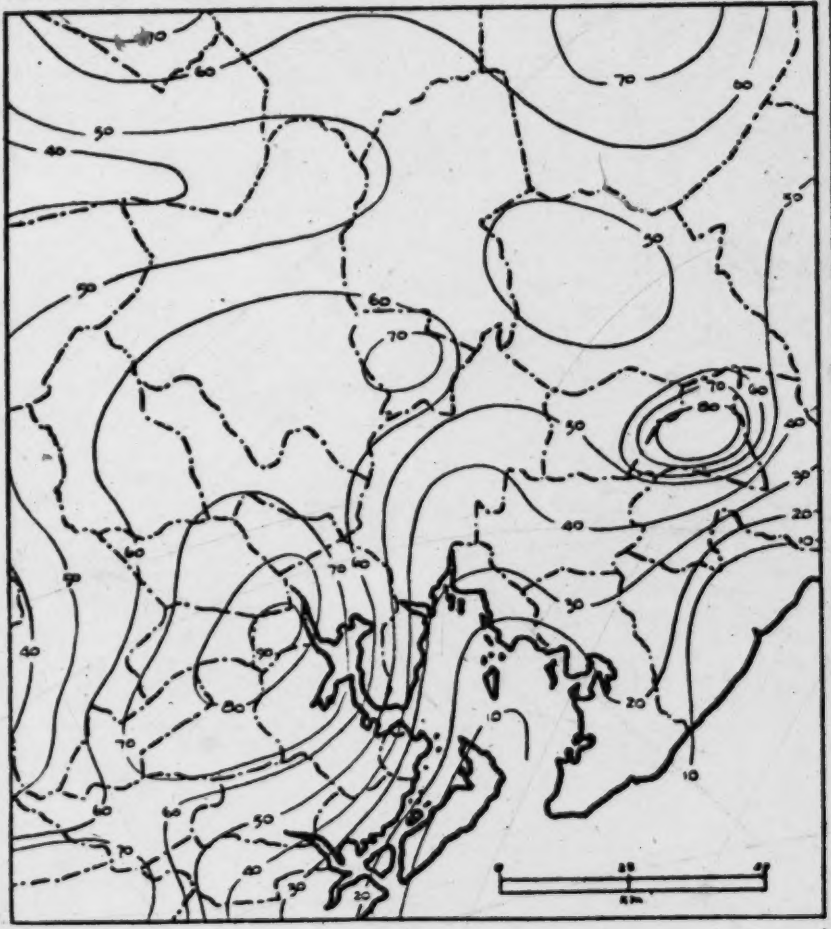

RECÔNCAVO OF BAHIA

Per cent of the Enumerated Area in

Crop-Livestock Enterprises--1940

Source of data: Recenseamento Geral do Brasil: 1940. Censos Econômicos, Bahia, Vol. II.

MAP 99

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

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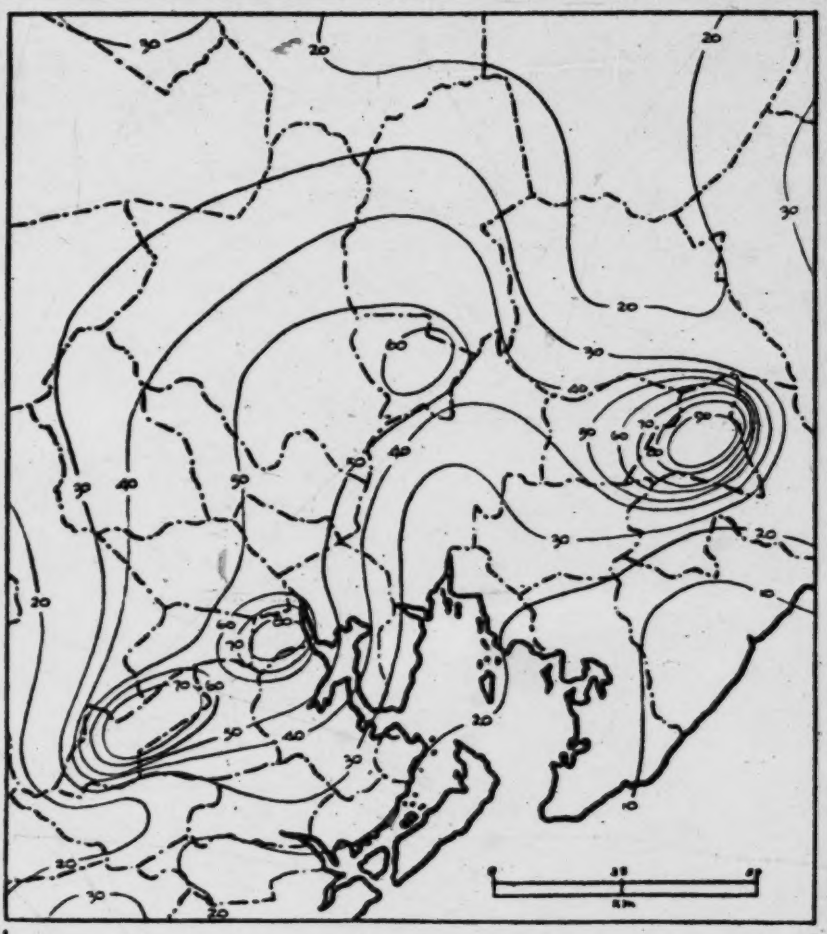

RECÔNCAVO OF BAHIA

Per cent of the Total Land Area in

Crop-Livestock Enterprises—1940

Source of data: Recenseamento Geral do Brasil: 1940. Censos Econômicos, Bahia, Vol. II.

MAP 100

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

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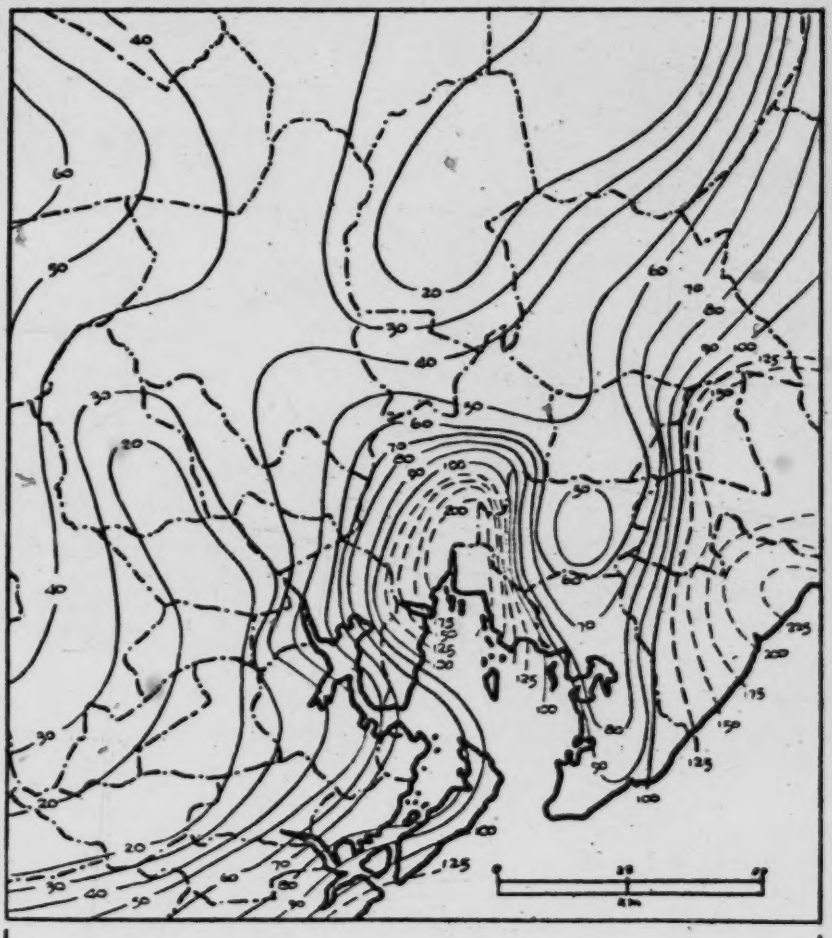

RECÔNCAVO OF BAHIA

Mean Size of Crop-Livestock Enterprises—1940

In Hectares

Source of data: Recenseamento Geral do Brasil: 1940. Censos Econômicos, Bahia, Vol. II.

MAP 101

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

244 249 231 233 [423] [311] the tobacco-manioc region is an area of co-existing crop and livestock production. The mean size of mixed units of both the tobacco-manioc region and the western and northern perimeter of the Recôncavo was small--20 to 40 hectares--but was significantly larger than the mean size of crop farms in the same areas (Map 101). Like the purely cane-producing plantations, the mixed units of the Central Recôncavo were relatively large.

241 231 232 311 Crop Cultivation and Mixed Crop Cultivation and Livestock Producing Units Combined. The distribution of the area in crop and crop-livestock units combined, as shown on Maps 102 and 103, reaffirms the regional distinctiveness of the Recôncavo. In almost the entire region over one-half the total area was in these two types of crop-producing properties. None of the adjoining municípios had as much as 50 per cent of their total area in these two types of units, and in all but three, less than one-third the land was in crop or crop-livestock properties.

241 311 184 [231] [233] Regional Pattern of Agricultural Properties. The distribution of the three major production units is summarized on Map 104. In each of the two basic regions--crop and crop-livestock--one production type dominated, in number and in area, over the others. The Central Recôncavo with the island of Itaparica and, beyond the Recôncavo, the environs of Nazaré composed a region in which most of the agricultural land was in crop cultivation units. North of the Bay, most of these crop cultivation units were sugar cane plantations. On Itaparica there were several kinds of crop cultivation units--coconut plantations, diminutive manioc farms, and across from Salvador, small summer estates with a few cultivated fields. Around Nazaré most of the crop cultivation properties appeared to specialize in the production of manioc.

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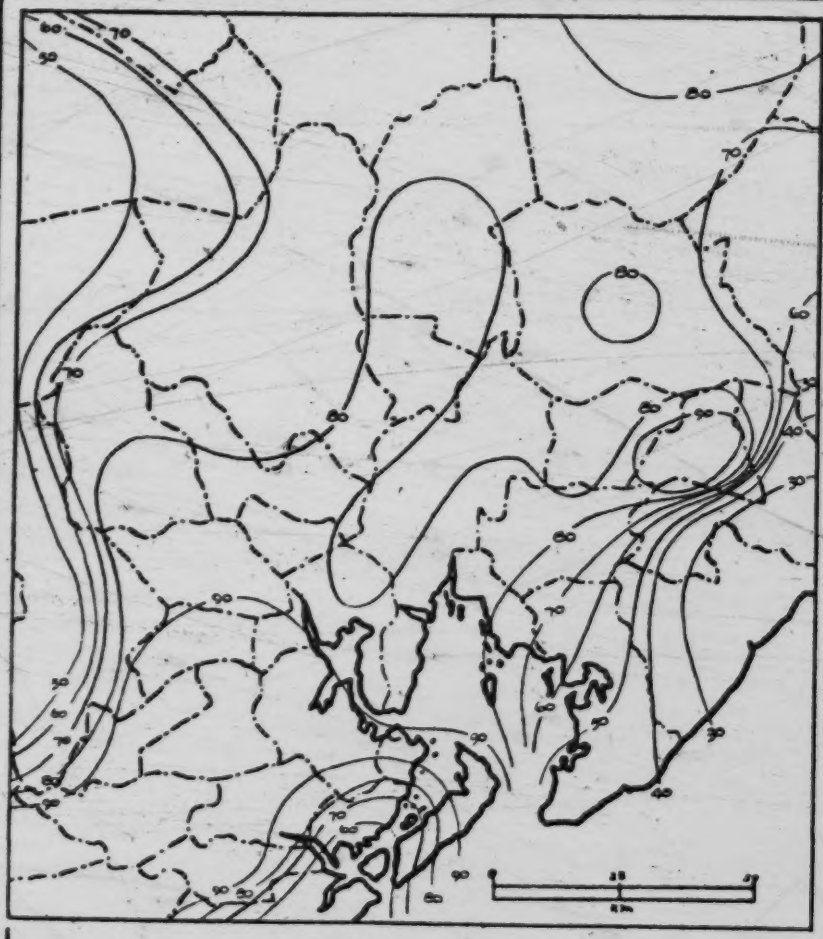

RECÔNCAVO OF BAHIA

Per cent of the Enumerated Area in

Crop Cultivation and Crop-Livestock Enterprises--1940

Source of data: Recenseamento Geral do Brasil: 1940. Censos Econômicos, Bahia, Vol. II.

MAP 102

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

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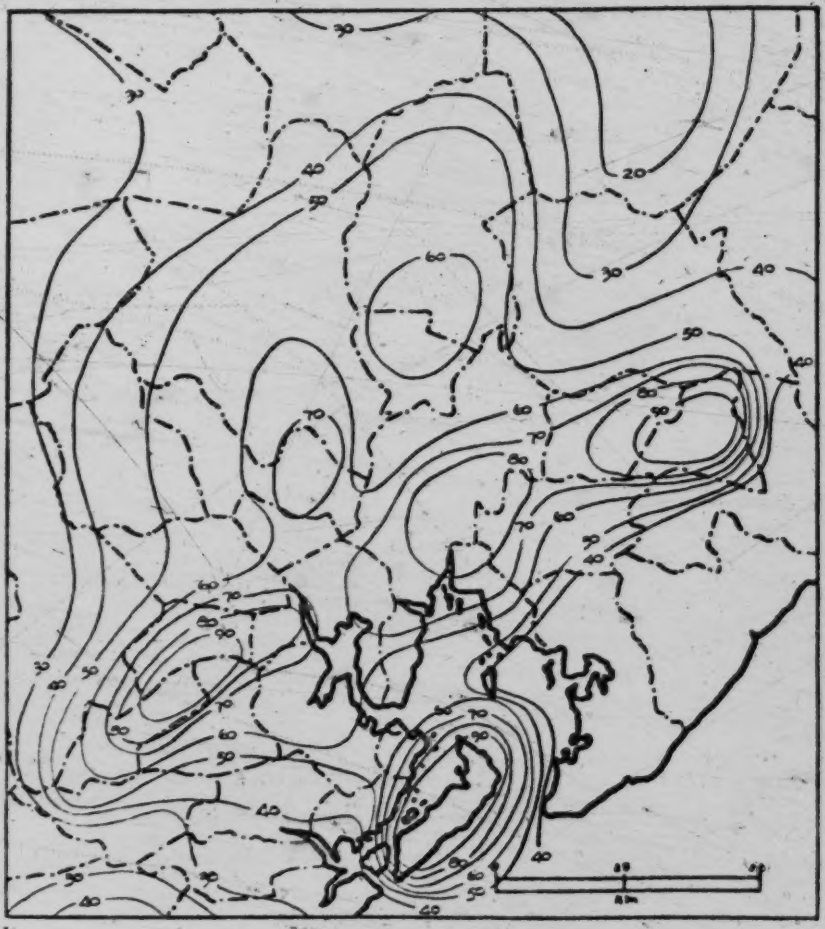

RECÔNCAVO OF BAHIA

Per cent of the Total Land Area in

Crop Cultivation and Crop-Livestock Enterprises--1940

Source of data: Recenseamento Geral do Brasil: 1940. Censos Econômicos, Bahia, Vol. II.

MAP 103

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

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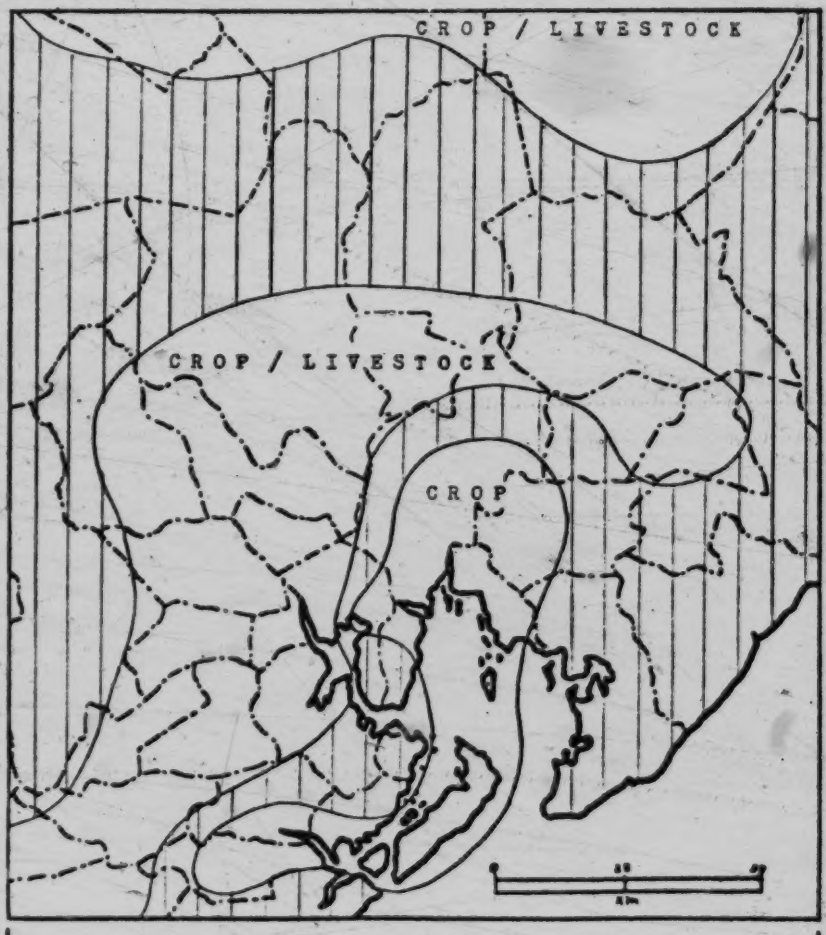

RECONCAVO OF BAHIA

Regional Pattern of Specialized Agricultural Enterprises

Crop/Livestock - Area in which crop-livestock enterprises predominate
Crop - Area in which crop enterprises predominate

MAP 104

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

241 231 233 311 Mixed crop and livestock units dominated the agricultural land of an inverted "L shaped" zone which began in the southwest and which, in the Recôncavo, coincided approximately with the tobacco-manioc region. Mixed crop and livestock units also dominated in the drier taboleiros north of the Recôncavo, The intermediate zone between the crop and crop-livestock regions within the Recôncavo was relatively narrow, conforming to the pattern of rapid transition from sugar cane to tobacco and manioc north of the Rio Paraguaçu. The outer transition zone, in which no single property type dominated, included the outer 231 margins of the Recôncavo except in the southwest. Purely livestock- 233 producing units did not dominate the agricultural land of any extensive area within or adjoining the Recôncavo.

241 311 423 The regions delimited above on the basis of the relative area in the two types of crop-producing units had additional significance in terms of the distribution of large-scale and small-scale enterprises (Map 105). The mixed-unit region, in which manioc and tobacco are so important, had only limited areas in large properties--usually 5 per cent to 20 per cent of the enumerated area. There were few large properties in the southern part of the crop unit region also, but in the sugar cane area north of the Bay over 40 per cent of the enumerated area was in large properties. These regional patterns of property types conform to the distribution of mean property size (Map 106); the mixed-unit region had mean properties of 10 to 20 hectares in the Southwestern Recôncavo and 20 to 30 hectares [illegible]h of the Rio Paraguaçu, while the mean property size in the sugar cane area exceeded 100 hectares.

241 423 Size of Agricultural Properties. As has been seen, the agricultural properties of the Recôncavo are highly diverse in size, as is to be expected in an economy dichotomized into the predominantly

[TEXT CONTINUED ON PAGE 318]

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11
Brazil SL1

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[656] operation is determined by the company officers, who generally live in Salvador. The company, in its turn, is subject to some control from Rio de Janeiro and São Paulo investors. This structured system of control probably is one of the reasons for the continuation of the monoculture in the sugar cane area. The usual explanation offered for the cane monoculture is the unique suitability of the soil and climate and the innate conservatism of the Baiano. However, one of the features of the present sugar economy is the lack of capital for other enterprises. The absentee owners, who are the only likely source of capital, are hesitant to advance money for new and untried enterprises. Moreover, alternative agricultural enterprises, if successful, would reduce the supply of cane and thus eventually raise the cost of usina operation.

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442 In the tobacco-manioc region the control exercised by Salvador is indirect, but compelling, because the small tobacco producer is almost completely at the mercy of the buyer, who receives orders from the tobacco exporter and manufacturer through the agent.

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[233] The differences in production specialization, size, and tenure among the agricultural properties of the Recôncavo both accentuate the basic dichotomy of the region and re-emphasize its unity. The small-scale mixed crop cultivation and livestock producing unit of the tobacco-manioc region and the large-scale crop cultivation unit of the sugar region are both esentially engaged in the production of commercial crops. Both are distinct from the primary agricultural unit of the sertão, the livestock ranch. Both are subject to the over-all economic control of the center—Salvador.

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[249] In most parts of Brazil, as in the Recôncavo, the agricultural properties are highly diverse in size, function, and ownership. Most areas of sugar cane cultivation have relatively large properties, primarily engaged in crop cultivation. In other areas, as in

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Brazil SL1

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In other areas, as in the Recôncavo, more and more of the cane plantations are passing into the hands of the central mills and are being operated by administrators. Small properties, owner or renter operated, are also a widespread feature of the Brazilian agricultural scene. Frequently, as in the Recôncavo, large and small properties are intermixed in zones where several crops and livestock are raised jointly. Throughout Brazil the class of small property holders is tied to the merchant and large landholder class by a network of economic and social relationships much like those of the Recôncavo. Apparently the number and total area of small properties is growing, especially in Central and South Brazil. If this be so, the development of small farms in the Recôncavo, such as those producing tobacco and manioc, is part of the nationwide trend.

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11
Brazil SL1
South Brazil SM1
East Brazil SN1
Northeast Brazil SO1
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TABLE XV

VALUE OF THE CHIEF COMMERCIAL PRODUCTS OF THE RECÔNCAVO COMPARED WITH OTHER AREAS—1948

Agricultural Products	Value of Production in Cr.$000			
	Recôncavo	Bahia	Other Centers*	Brazil
Crops:				
Leaf Tobacco	86,700	155,041	227,266 - Rio Grande do Sul	615,29
Manioc	70,600	292,373	351,427 - Minas Gerais	2,357,57
Sugar Cane	54,200	148,980	458,254 - Pernambuco	2,425,49
Beans	15,500	123,552	670,274 - Minas Gerais	2,719,23
Oranges	14,800	28,904	191,938 - Rio de Janeiro	567,79
Bananas	9,200	35,503	144,525 - São Paulo	754,38
Corn	8,200	71,623	1,423,153 - Minas Gerais	5,249,03
Coconuts	6,500	46,368	42,135 - Paraiba	225,87
Coffee	3,400	95,958	3,947,704 - São Paulo	6,450,91
Pineapples	1,700	4,130	24,020 - São Paulo	94,40
Peanuts	1,300	1,738	258,287 - São Paulo	292,27
Sweet Potatoes	1,200	19,837	100,732 - Rio Grande do Sul	435,54
Total of 12 Crops	273,300	1,024,057		22,137,50
Total of 21 Principal Crops**	275,000	1,731,164	11,213,444 - São Paulo***	33,082,87
Livestock	60,000			

*In each case the figure which is used for comparison is that of the principal producer of the individual crop in Brazil, except in the case of coconuts, where Bahia is the chief producer and the second most important center has been used.

**These are the 21 principal crops of Brazil which are listed in Produção Agrícola: 1948.

***São Paulo was used in this comparison because the total value of its production of the principal crops exceeds that of any other state.

Source: Produção Agrícola: 1948.

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1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11
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BB 245 433 439

come to be the area of the greatest value of agricultural production in the state--Cr.$1,007,824,000, in 1948, almost three times the value of

B BB 231 233 433

crop and livestock production in the Recôncavo, Cr.$335,000,000. The total value of livestock production in the Recôncavo is estimated to be about Cr.$60,000,000 for 1948. Although no comparable figure is available for Brazil, probably the Recôncavo had less then 1 per cent of the livestock and thus produced less than 1 per cent of the value of livestock in the nation as a whole.[1]

B BB 433

The present inferior position of the Recôncavo is in part a reflection of the relative decline of the region in the nineteenth century discussed in the chapter on the evolution of the Recôncavo. However, the Recôncavo continues to lag behind in the contemporary development of Brazil. From 1944 to 1952 the total cruzeiro value of the principal

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crops of Brazil increased four-fold, while the value of Bahia's tobacco crop, a good indicator of the economic shifts of the Recôncavo, increased by only one-fifth despite the concurrent inflationary spiral. Even the government-stabilized sugar industry of the Recôncavo produced only three and one-half times its 1944 value. Although the above increases are more indicative of the steadily declining value of Brazilian currency than of true economic development, they are an index of the relative importance of agriculture in the Recôncavo to the national economy.

BB 249 244 433 371

Tobacco, sugar cane, and manioc, which occupied 70 per cent of the Recôncavo's cropland, accounted for 77 per cent of the total value of all principal crops in 1948 (Table XVI). Each of the three crops contributed at least 20 per cent of the value of all crops, while no other crop produced over 6 per cent of the total. The cruzeiro value of these principal crops, and of livestock, and their relative position within the nation has been given in Table XV, above.

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

241 433 Except in the southwest and around Salvador, commercial crops produced only 40 per cent of the total value of all crops. It is apparent that agriculture in the Recôncavo is by no means universally commercial. Moreover, in all parts of the Recôncavo except the sugar cane area, there are small agriculturalists who produce few commercial crops and are thus virtually subsistence cultivators.

241 231 233 433 The estimated value of livestock production was less than that of crops in all areas of the Recôncavo except Feira de Santana, and, except in Feira de Santana and Alagoinhas, less than half the value of crops (Map 128). In the chief commercial crop areas--Central and Southwestern Recôncavo--livestock production had about 10 per cent of the value of crops. These areas, on the evidence of value as well as land use and quantity of production, have highly commercial crop economies. Only Feira de Santana can be said to have a livestock economy, and in this area livestock production is concentrated around the cidade, and the rest of the município has a predominately crop-producing economy.

128 241 231 233 433 The table which follows (Table XVIII) summarizes the distribution of the value of crops and animals in the principal regions and zones of production. These areas accounted for 82 per cent of the total value of agricultural production in the Recôncavo in 1948. The data of this table give further evidence of the tremendous economic importance of the tobacco-manioc and sugar cane regions to the Recôncavo.

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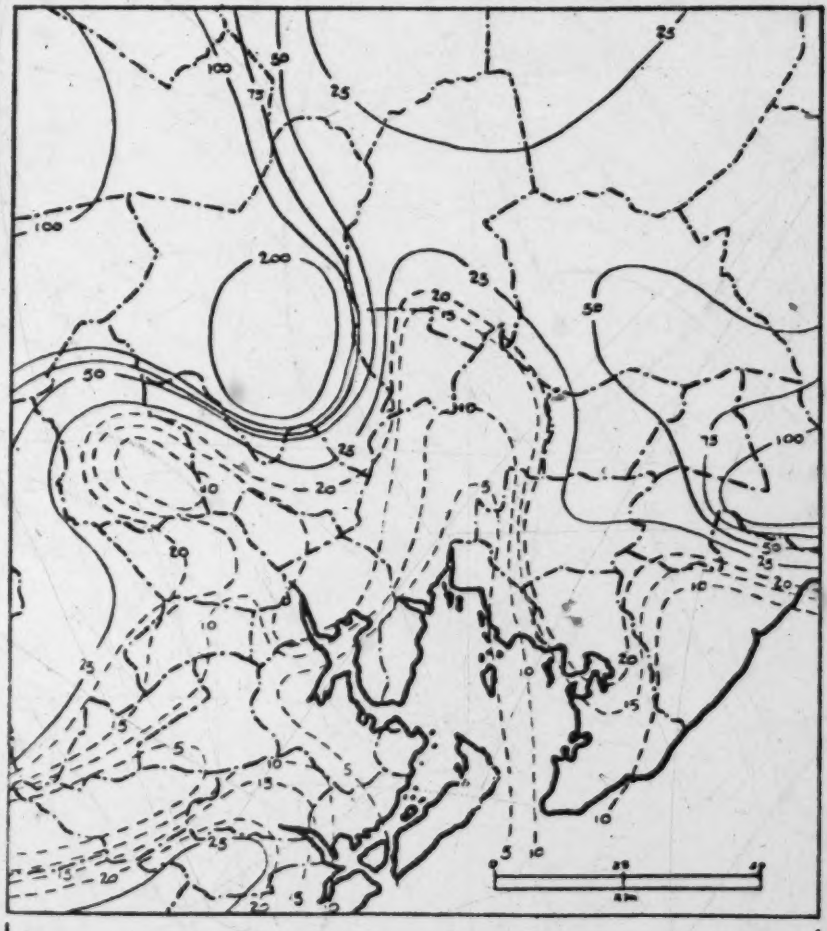

RECÔNCAVO OF BAHIA

Value of Livestock Production as a Per cent of the Value of Crop Production--1948

MAP 128

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

CHAPTER XI

CONCLUSION

128 In the preceding chapters the results of a statistical appraisal and a field investigation of agriculture in the Recôncavo have been presented. As a conclusion it seems appropriate to: (1) summarize the findings; and (2) discuss the potentialities of the Recôncavo for agricultural development

433 Like most of the densely-settled east coast of Brazil, the
241 Recôncavo is engaged primarily in the production of crops. This is true not only of the region as a whole, but also of each of its individual parts excepting only the area around the cattle market town of Feira de
241 Santana. The total cultivated area of the region, about 6.4 per cent
311 of the land surface, was almost evenly divided in 1948 between purely commercial crops--tobacco, sugar cane, coffee, oranges, and coconuts--and subsistence-commercial crops--manioc, corn, beans, bananas, peanuts, and sweet potatoes. About 70 per cent of the cropland was used for the three predominant crops--manioc, tobacco, and sugar cane. Livestock pro-
231 duction is associated with crop cultivation in many parts of the
233 Recôncavo, but the region is also dependent upon the sertão of Bahia
241 for livestock, which are driven into Feira de Santana and are used in several different areas within the region.

249 The three principal crops as determined by cultivated area--
244 tobacco, manioc, and sugar cane--accounted for 77 per cent of the total
433 value of crops in 1948, and no other crop accounted for more than
[231] 6 per cent of the total value. Thus agriculture in the Recôncavo is
[233] primarily concerned with these three crops and with the production

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

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of livestock, which had a value greater than sugar cane but less than manioc.

Agricultural activities within the Recôncavo are localized in several distinct sub-regions, each with a specialized system of cultivation and each with either one or two principal crops. The primary agricultural subdivisions of the region are: (1) the sugar cane monocultural sub-region; and (2) the tobacco-manioc sub-region.

249 Sugar cane is grown as the exclusive crop in its major area of production--the pocket of coastal plain north of the Baía de Todos os Santos. Cane is generally cultivated under a four-year monoculture and one-year fallow system on large properties employing large quantities of hand labor and using oxen to draw plows and carts. Neither fertilizer
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nor agricultural machinery is used to any appreciable extent. Most of
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the animals used as labor in the production of sugar cane are brought into the area from the sertão, and little livestock breeding is found in this area. The processing of sugar cane is in the hands of a small
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number of medium-sized usinas. The companies which own these usinas are gradually buying up the plantations so that to an increasing extent the mills directly control the production of sugar cane. Most of the
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cane is brought to the usinas by railroad, although sailing boats are used for this purpose along tidewater. Most of the sugar produced in the Recôncavo is consumed within the state of Bahia, but small quantities are shipped to other parts of Brazil. Both the aristocratic upper class
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and the rising non-aristocratic business interests of the Recôncavo are involved in the ownership and administration of the sugar industry. The
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permanent labor force is supplied from the settlements of the sugar cane plantations and the mills, but the rural population and the labor force of the sugar area are declining. Seasonal labor for the harvest comes from the interior sertão of Bahia.

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

249 311 [134] Commercial sugar cane cultivation is confined to the humid Coastal Plain areas with Cretaceous clay soils, except for a small area in São Filipe. Since the areas of Cretaceous clay soils are limited and compact, sugar cane production is highly localized in two areas: (1) the main sugar cane area in the municípios of Santo Amaro, São Francisco, and São Sebastião; and (2) a smaller area north of the Bacia do Iguape in the município of Cachoeira. There is a third area of less intensive production in southern São Filipe.

249 244 [433] The sole purpose of cultivation in the sugar cane area is the production of a commercial product, but the areas of tobacco-manioc cultivation produce both a staple food and a commodity for sale outside the region. Most of the tobacco and manioc of the Recôncavo are produced under a land rotation system in which the sequence is: (1) tobacco; (2) manioc; and (3) fallow in wild vegetation. The tobacco is planted in small fields, usually after an application of manure. The entire plant is harvested repeatedly until it will no longer produce a salable leaf. Manioc is planted following tobacco, sometimes several times, until the field is exhausted and abandoned to the second growth. The fallow period is frequently short, sometimes as little as one year. Cultivation is entirely by hand--no plows are used. There is very little selection of seed, and only one variety of tobacco--Bahia Brasil--is [423] [427] produced. Tobacco and manioc are produced almost exclusively by small cultivators who are either owners or renters. Frequently livestock [231] [233] are raised upon the properties of the cultivators, but except for the use of manure in the cultivation of tobacco, there is little integration of crop and livestock production. The leaf is harvested, dried, 276 and partially fermented by the cultivator. The marketing of tobacco 276 438 [452] [488] is inseparable from the credit arrangement between the cultivator and the tobacco buyer or agent. The leaf is delivered by the producer to the storekeeper-buyer or the local tobacco warehouse.

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11
Brazil SL1

BB 241 231 233 In the surrounding sertão livestock production is the areally and, in many cases, economically dominant activity; the Recôncavo is primarily a region of crop cultivation.

BB 43 443 The Recôncavo is a functional unit in the economic organization of commercial agriculture and marketing. Salvador, with one-third of the people of the region, is the primary market center. The credit BB [249] [452] essential to the production of tobacco passes from the city to the countryside, while the leaf is either shipped to the city for export or is sent B BB [249] to local cigar factories controlled by Salvador companies. Similarly, the headquarters of the sugar industry and the chief market for its products is Salvador. Feira de Santana is also a functional center for the region, since in its markets the agricultural and industrial products which either originate in the Recôncavo or are imported through Salvador are exchanged for the livestock, crops, and extractive products of the sertão.

B BB 241 Many of the features of the agricultural system of the Recôncavo are also characteristic of Brazil. Both the land rotation system and the permanent monoculture are basic Brazilian agricultural systems. Agricultural technology, in the Recôncavo and in most parts of Brazil, B BB [464] is relatively backward. Brazilian agriculture is labor extravagant, and there is a constant falta de braços, but with few attempts at mechanization. Agriculture is highly speculative, whether tobacco in B BB [423] [565] the Recôncavo or coffee in São Paulo. The large property—latifundia—and the class organization with which it is associated are important in the region and in the country as a whole. There are large numbers of semi-dependent small cultivators in the Recôncavo as in other parts of Brazil. Both the region and the nation are very dependent upon the sale of agricultural products to distant markets.

1:Haskins K-4,5 (1952-1954)1956 SO11 Bahia Brazilians SO11

APPENDIX G

Procedure Used in Estimating Value of Animals Produced in the Recôncavo in 1948

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The 1948 data on livestock[1] gave the total number of animals for each município but did not show the number slaughtered nor the value of animal production. An estimate of the latter figure was made for 1948 in order to compare the value of crop and livestock production for that year. The method of estimation was as follows.

It was assumed that the change in the cattle population between these years was the best available index of the change in the value of animal production, since cattle are the most common and most valuable major animal. The index of change thus derived was used to raise or lower the 1940 value of animal production of each município, as given in the Censos Econômicos, Bahia, Vol. II, to a 1948 level, but still in terms of 1940 currency. This latter figure was increased by 350 per cent to conform to the declining value of the cruzeiro. For example:

Alagoinhas: $\frac{\text{1948 cattle}}{\text{1940 cattle}} = \frac{26,060}{13,090} = 2$ (approx.)

1940 value of production = Cr.$825,000

Cr.$ 825,000 x 2 = Cr.$1,650,000

Cr.$1,650,000 x 3.5 = Cr.$5,775.000.

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[1] Ministério da Agricultura, Serviço de Estatística da Produção, "População Pecuária, Em 31/12/1948."

mers. However, on almost every plantation there are brick-lined springs from which the inhabitants get their drinking water. Women or children carrying five-gallon cans of water on their heads, and donkeys carrying four wooden kegs of water, are common sights along the roads of the Recôncavo. For the cattle and other livestock of the plantations, drinking places are excavated wherever there promises to be enough water. Frequently, however, these go dry in the summer, especially during the drought years which occur cyclically in rhythm with the droughts of the sertão. At such times loss of cattle is prevalent, except on plantations situated near one of the small rivers.

A high-voltage electric line passes through this section leading from the generating station further inland to the capital city. Recently most of the plantations have been able to connect with this line, so that at least the owners' houses have electric light. The houses of the workers are without it except at the factory, where the mill supplies its own electric power which is carried to almost all the workers' houses.

There are four state schools and one county school distributed among the plantations. The central school in the town of Vila Recôncavo is not attended by children from the plantations. Two plantations have their own chapels, which are visited at irregular intervals by the priests of Vila Recôncavo. On the other plantations a small altar is set up in the owner's house for special occasions such as Christmas, when the town priest is invited to celebrate the Mass.

There is in the town a medical post with a visiting doctor, a dentist, and several nurses in training, which is administered by a Franciscan lay brother and supported by federal, state, and county funds and by private donations. This post is fairly recent, and its influences are spreading only slowly to the rural area. Also in the town is a small county medical post run by a resident physician. The sugar factory has a dispensary with a nurse and is visited by the town doctor. Almost every plantation has its own first-aid equipment, generally in the owner's house.

There are no fairs in the community. There are stores in the town and a large supply store at the factory, run by the corporation, and nearly every plantation has its own small store. Major purchases are made at the weekly market in Centro, in the neighboring county. There are also traveling ped-

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gave sugar growing a great impetus by organizing expeditions of soldiers which he led into the farthest reaches of the Bay of All Saints, killing, driving out or enslaving the hostile Indian inhabitants, so as to make the area safe for settlers to move out of the city into the surrounding area and plant sugar. Mem de Sá himself built one of the largest and most productive of the sugar plantations in the Recôncavo.[2] His lands comprised three and a half leagues along the coastline of the Bay, extending four leagues inland, and two islands.[3] This *sesmaria*—as the early land grants were called—of Mem de Sá was broken down into smaller pieces by his daughter who inherited it, and by the end of the sixteenth century, most of the *sesmarias* of the Recôncavo had similarly, been divided into plantations averaging approximately 600 to 1,000 acres. In the past 250 years, many of these have kept the same boundaries and names, but their ownership has changed hands many times and they have passed through many cycles of prosperity and depression.

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The essential form of a plantation in the Recôncavo has changed little since the seventeenth and eighteenth centuries. In the past, the entire plantation was known as an *engenho*, taking its name from the sugar-mill building which was the heart of the plantation. There were two chief types of sugar mills, one operated by water power and the other driven by traction power supplied by oxen. Before the end of slavery, steam-driven machinery had also come into use. A typical *engenho* had four main items of wealth—its lands, its buildings, the livestock and the slaves. Most of the land was, of course, planted in sugar cane, but there were also wood forests to supply firewood, pastures for the livestock, and small areas devoted to the raising of food stuffs for the personnel of the *engenho*. The buildings of an *engenho* included the sugar mill, the *sobrado*, or home of the owner, and the slave quarters. The owner's house was frequently a very large and pretentious building with one and a half or two storeys. In the Recôncavo the landowners sought to build their houses *a meia encosta*, or against the side of a hill, giving the appearance of a two-storey house in front, but only one in the rear. Such homes were frequently constructed of stone, wood and mortar, with tile roofs. The slave quarters, which were known as *senzalas*, were generally long narrow buildings with sides of mud or *taipa* and and roofs of palm fronds. The livestock of a typical *engenho* consisted of oxen, burros, horses, sheep and cows. The oxen supplied the power to turn the grinding mills when there was no water power, and they pulled the large two-wheeled carts which were used to transport the cane from the fields to the mill. Horses and burros provided transportation for the plantation owner in supervising the work in the fields, and for him and his family for visits to nearby *engenhos* and to town. Cattle and sheep grazing on the portions of the land which were fallow supplied milk and meat to the plantation community.

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